



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

MEETING MATERIALS

April 7, 2011

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION





Letter of Transmittal

TO: Toll Bridge Program Oversight Committee
(TBPOC)

DATE: March 28, 2011

FR: Program Management Team (PMT)

RE: TBPOC Meeting Materials Packet – April 7, 2011

Herewith is the TBPOC Meeting Materials Packet for the April 7th meeting. The packet includes memoranda and reports that will be presented at the meeting. A Table of Contents is provided following the Agenda to help locate specific topics.



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TBPOC MEETING
April 7, 2011 10:30am – 12:30pm
Mission Bay Office, 325 Burma Road, Oakland

TBPOC-PMT pre-briefing:	10:00am – 10:30am
TBPOC meeting:	10:30am – 12:30pm
TBPOC & Seismic Peer Review Panel:	12:30pm – 1:30pm
TBPOC Bridge Tour:	1:30pm – 3:00pm

	Topic	Presenter	Time	Desired Outcome
1.	CHAIR'S REPORT	S. Heminger, BATA	3 min	Information
2.	PROJECT-SPECIFIC INSURANCE a. New Policy*	T. Anziano, CT	20 min	Approval
3.	CONSENT CALENDAR a. TBPOC Meeting Minutes: 1) February 3, 2011 Meeting Minutes* 2) February 24, 2011 Conference Call Minutes* b. Contract Change Orders (CCOs): 1) CCO 47-S1 (YBITS1 Falsework)* 2) CCO 24-S1 (SAS Travelers)* 3) CCO 513-S0 (YBITS1 Oakland Detour Eastbound Roadway)* 4) CCO 16-S0 (Antioch Concrete Pedestal Forms)*	A. Fremier, BATA A. Fremier, BATA D. Noel, CTC	1 min 1 min 5 min	Approval Approval Approval
4.	PROGRESS REPORTS a. Draft 2011 First Quarter Project Progress and Financial Update**	A. Fremier, BATA	5 min	Approval
5.	PROGRAM ISSUES a. TBSRP Capital Outlay Support (COS) Update and FY 2011 - 12 Allocation Request*	A. Banani, CT	20 min	Approval
6.	SAN FRANCISCO-OAKLAND BAY BRIDGE UPDATES a. Self-Anchored Suspension (SAS) Superstructure 1) Mitigation and Acceleration Update b. Yerba Buena Island Transition Structure (YBITS) No. 1 1) Update c. Oakland Touchdown No. 2 1) Oakland Detour Operations Analysis*	PMT T. Anziano, CT S. Hulsebus, CT	15 min 5 min 15 min	Information Information Information

Final Agenda

	Topic	Presenter	Time	Desired Outcome
7.	ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT a. Update*	M. Pazooki, CT	5 min	Information
8.	SAN MATEO-HAYWARD BRIDGE RETROFIT REHABILITATION a. Update*	M. Pazooki, CT	5 min	Information
9.	EYEBAR FOLLOW-UP a. Update	A. Fremier, BATA	15 min	Information
10.	OTHER BUSINESS			
Next TBPOC Meeting: May 5, 2011, 10:00 AM – 1:00 PM Mission Bay Office, 325 Burma Road, Oakland				

- * Attachments
- ** Stand-alone document included in the binder
- *** To be sent under separate cover

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7	7	ANTIOCH/ DUMBARTON BRIDGE SEISMIC RETROFIT UPDATES a. Updates*

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ITEM 1: CHAIR'S REPORT

No Attachments

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 2a

Item- Project-Specific Insurance
New Policy

Recommendation:

APPROVAL

Cost:

\$4 million

Schedule Impacts:

N/A

Discussion:

Staff requests TBPOC approval of a \$4 million payment to TYLMN for costs associated with project-specific insurance.

Background

The Department selected the services of the T Y Lin International and Moffatt & Nichol, a Joint Venture (TYLMN) in January 1998 to design the New East Span of San Francisco Oakland Bay Bridge (Project). While the design contract (Contract 59A0040) was being negotiated, TYLMN noted that, given the high estimated cost of the Project, the Department's normal insurance requirements would be insufficient to cover potential liability associated with the Project and that prudent coverage would be well beyond that available under the standard errors and omissions policies held by TYLMN. The Department looked to the Office of Risk and Insurance Management of the Department of General Services (DGS), the State's insurance expert, for guidance. On January 12, 1998, DGS issued a memorandum that recommended the procurement of a Project Specific Insurance Policy (PSIP) – an errors and omissions policy specific to the Project. The memorandum noted that the State had used this approach on other projects, with policy values ranging from \$5 million to \$25 million in coverage for projects ranging in construction contract value from \$50 million to \$350 million. DGS suggested contract

language that would incorporate a PSIP and recommended coverage in the range of \$10 million to \$20 million. The DGS memo also stated: "...the State will ultimately be responsible for payment of all insurance premiums associated with this project...." On August 20, 1998, DGS issued a second memo that revised its recommendation for the amount of coverage to a range of \$20 to \$25 million (the second memo did indicate that reimbursement could be achieved by including the cost as part of overall overhead costs, but it was later determined that, since it was a specific cost tied exclusively to the project, it was more appropriately handled as a direct cost under the Federal Acquisition Regulations).

The Department followed the DGS recommendation when it negotiated Contract 59A0040 with TYLMN. The contract was executed on January 21, 1998. At that time, the scope of actual design work was still somewhat uncertain, so the initial contract contained the following language: "Article XXII – Insurance Section E. A Project Specific Professional Liability Policy may be required as part of the Phase II and Phase III portion of this contract. Limits and premium payments for this policy will be negotiated as part of Phase II if policy is required".

The terms of the PSIP were negotiated during Phase II of the contract work. Specific insurance requirements followed the recommended DGS language and were set forth in Task Order No. 3, section VII. The terms included a minimum of \$15 million in coverage. Task Order 3 was executed on November 1, 1998.

Based on the project value and schedule in effect at that time, TYLMN procured a policy in 1999 with coverage in the amount of \$50 million at a cost of \$1,485,000 with coverage through December 31, 2010. This policy provided coverage for TYLMN as well as its 50 sub consultants. While not stated in the Task Order, a verbal agreement was reached to share policy costs. The Department recalls the agreement to require the Department to bear approximately 70 % of the cost and TYLMN bearing approximately 30% of the cost. Certain costs set forth in the project scope and payment schedule attached to Task Order 3 do support the existence of this verbal agreement, although the stated costs indicate an 80% policy payment by the Department. PSIP costs appear to be included in Project Management and Administration (PMA) payments for the month of January, 1999. Payments for PMA in January 1999 totaled \$1,352,000, while normal monthly PMA payments for a 17-month period averaged \$160,000. This would indicate that \$1,192,000 was paid for the PSIP premium, or 80% of the total premium cost.

Memorandum

Due to circumstances beyond the control of both the State and TYLMN, the Project schedule has significantly extended and Project costs have substantially increased. With the existing policy set to expire in December of 2010, TYLMN initiated a discussion with the Toll Bridge Program Oversight Committee (TBPOC) in 2007 regarding procurement of a new policy that would provide coverage through the end of the project. This discussion led to a specific request presented to the TBPOC in October and December of 2007. TYLMN proposed a new layered policy providing \$40 million in coverage at a total cost of \$10.5 million. The significant increase in premium cost and the unwillingness of carriers to offer up to \$50 million in coverage was due to continued volatility in the insurance market that had started with the September 2001 terrorist attack and continued due to a variety of issues, both natural and man-made. The TBPOC requested the development of additional information and options with emphasis on reducing premium costs.

One year later, in November of 2008, the matter returned to the TBPOC for consideration. At that time, TYLMN had received a new offer for coverage in the amount of \$25 million at a lower premium cost of \$4 million. The TBPOC considered the matter and requested additional information, including a request for specific proposals from TYLMN for actions that TYLMN could take to support project acceleration as well as options to develop waiver language in partnership with American Bridge/Fluor (ABF), the main span contractor that might minimize or eliminate the need for a continued PSIP.

TYLMN was unable to develop waiver language with ABF. With the upcoming policy expiration, TYLMN moved ahead and procured the new insurance policy with \$25 million in coverage in 2009 to replace the expired policy. TYLMN has stated that they did not secure a policy with greater coverage due to the high costs for such a policy which they would have to bear pending a final decision on TBPOC participation.

At this time, TYLMN is requesting reimbursement for the entire premium and will consider the matter closed, taking the position that the Department remains obligated to participate in the premium costs in accordance with the contract, that they have incurred additional costs in carrying the cost of the Department's share since 2009, and that they are agreeing to a policy with lesser coverage value than the initial policy which may create some exposure to claims made by sub consultants that the initial policy coverage should be maintained.

There is no remaining exposure on the prior policy. During the period in which the TBPOC was previously considering this matter there was the possibility that the prior

policy might have an additional premium due as a result of an increase in overall construction value of the portions of the project for which TYLMN is responsible. However, a final audit in 2010 concluded that there was no increase in construction value and no additional premium was due.

Analysis

Both the State Contract Manager and the Department's Division of Procurement and Contracts (DPAC) have reviewed the Contract, various documents and analysis performed by both the Department and TYLMN. It is their joint opinion that the Department is obligated to pay at least 70% to 80% of the premium cost associated with the new policy, based on the executed contract and task orders. Since TYLMN had to purchase this new policy some time ago, the Department may be responsible for other costs (finance charges, fees, etc.) incurred by TYLMN. A copy of a memorandum documenting this opinion is attached.

TYLMN has indicated that it would like to be compensated for the carrying costs associated with paying for what it considers to be the Department's "share" of the new policy. Current market rates for commercial credit are in the range of 15-20 percent. If the Department's obligation is assumed to be 70 percent (\$2.8 million), interest alone for approximately 2 years would be \$840,000-\$1,120,000 for a total of \$3,640,000 - \$3,920,000. If the Department's obligation is assumed to be 80 percent (\$3.2 million), interest alone for approximately 2 years would be \$960,000-\$1,280,000 for a total of \$4,160,000 - \$4,480,000. The overall exposure range, including carrying costs based on interest, is therefore \$3,640,000-\$4,480,000. The 80 percent obligation is the most likely outcome given its support by documentation.

In addition, there is potential exposure to a demand by TYLMN for procurement of a policy with greater coverage, potentially up to \$50 million if available in the commercial insurance market. Given prior pricing of the policy providing \$40 million in coverage, this could expose the Department to something in the range of an additional \$2.1-\$2.4 million in premium costs. This estimate is based on a rough estimate of an additional premium for \$20 million in coverage at a total cost of \$3 million (the prior pricing had three layers of coverage: a base layer of \$15 million coverage at a premium of \$5.25 million, a second layer of \$10 million coverage at a premium of \$2.6 million, and a third layer of \$15 million coverage at a premium of \$2.6 million, for total coverage of \$40 million).

Total exposure is therefore in the overall range of \$5,740,000 - \$6,880,000.

The requested payment of \$4 million is well below the lower end of exposure.

Attachment(s):

1. January 20, 2011 CT Memo
2. October 23, 2007 TBPOC Memo
3. October 30, 2007 TBPOC Meeting Minutes
4. December 6, 2007 TBPOC Memo
5. December 11, 2007 TBPOC Meeting Minutes
6. October 29, 2008 TBPOC Memo
7. November 6, 2008 TYLMN Presentation to the TBPOC - Project Insurance Continuation Program Overview
8. November 6, 2008 TBPOC Meeting Minutes
9. December 16, 2008 TBPOC Memo
10. December 23, 2008 TBPOC Meeting Minutes

Memorandum

*Flex your power!
Be energy efficient!*

To: TONY ANZIANO
Program Manager, Toll Bridge Program

Date: January 20, 2011

File: Contract 59A0040

From: ADE AKINSANYA
Contract Manager, SFOBB

MOHAMMAD MALJAI
Contract Officer, DPAC

Subject: Recommendation to Maintain and Procure Project Specific Professional Liability Insurance for TY Lin International & Moffatt and Nichols, Joint Venture (JV)

Background

The Department selected the services of the T Y Lin International and Moffatt & Nichol, a Joint Venture (TYLMN) in January 1998 to design the New East Span of San Francisco Oakland Bay Bridge (Project). While the design contract (Contract 59A0040) was being negotiated, TYLMN noted that, given the high estimated cost of the Project, the Department's normal insurance requirements would be insufficient to cover potential liability associated with the Project and that prudent coverage would be well beyond that available under the standard errors and omissions policies held by TYLMN. The Department looked to the Office of Risk and Insurance Management of the Department of General Services (DGS), the State's insurance expert, for guidance. On January 12, 1998, DGS issued a memorandum that recommended the procurement of a Project Specific Insurance Policy (PSIP) – an errors and omissions policy specific to the Project. The memorandum noted that the State had used this approach on other projects, with policy values ranging from \$5 million to \$25 million in coverage for projects ranging in construction contract value from \$50 million to \$350 million. DGS suggested contract language that would incorporate a PSIP and recommended coverage in the range of \$10 million to \$20 million. The DGS memo also stated: "...the State will ultimately be responsible for payment of all insurance premiums associated with this project...." On August 20, 1998, DGS issued a second memo that revised its recommendation for the amount of coverage to a range of \$20 to \$25 million (the second memo did indicate that reimbursement could be achieved by including the cost as part of overall overhead costs, but it was later determined that, since it was a specific cost tied exclusively to the project, it was more appropriately handled as a direct cost under the Federal Acquisition Regulations). Copies of the DGS memos are attached.

The Department followed the DGS recommendation when it negotiated Contract 59A0040 with TYLMN. The contract was executed on January 21, 1998. At that time, the scope of actual design work was still somewhat uncertain, so the initial contract contained the following language: "Article XXII – Insurance Section E. A Project Specific Professional Liability Policy

may be required as part of the Phase II and Phase III portion of this contract. Limits and premium payments for this policy will be negotiated as part of Phase II if policy is required". A copy of this section of the contract is attached.

The terms of the PSIP were negotiated during Phase II of the contract work. Specific insurance requirements followed the recommended DGS language and were set forth in Task Order No. 3, section VII. The terms included a minimum of \$15 million in coverage. Task Order 3 was executed on November 1, 1998. A copy of relevant portions of Task Order 3 is attached.

Based on the project value and schedule in effect at that time, TYLMN procured a policy in 2009 with coverage in the amount of \$50 million at a cost of \$1,485,000 with coverage through December 31, 2010. While not stated in the Task Order, a verbal agreement was reached to share policy costs, with the Department bearing approximately 70 % of the cost and TYLMN bearing approximately 30% of the cost. Certain costs set forth in the project scope and payment schedule attached to Task Order 3 do support the existence of this verbal agreement, although the stated costs indicate a 80% policy payment by the Department. PSIP costs appear to be included in Project Management and Administration (PMA) payments for the month of January, 1999. Payments for PMA in January 1999 totaled \$1,352,000, while normal monthly PMA payments for a 17 month period averaged \$160,000. This would indicate that \$1,192,000 was paid for the PSIP premium, or 80% of the total premium cost.

Due to circumstances beyond the control of both the State and TYLMN, the Project schedule has significantly extended and Project costs have substantially increased. With the existing policy set to expire in December of 2010, TYLMN procured a new insurance policy in 2009 to replace the expired policy. The new policy provides \$25 million in coverage at a cost of \$4 million (financial and insurance market disruption due to economic volatility and the impacts of the 9/11 terrorist attack in 2001 have significantly increased insurance costs and limited available coverage limits). TYLMN did not secure a policy with \$50 million in coverage due to the high costs (about \$11 million) for such a policy. TYLMN had requested that the Department participate in the purchase of this new policy, but for various reasons, the Department was unable to participate in the purchase in 2009. However, given the volatility seen in the insurance market over the past few years, and given the approaching expiration date of the initial policy, it was clearly prudent for TYLMN to purchase the new policy when it did. TYLMN has continued to request that the Department reimburse them for the new policy premium total cost. At this time, TYLMN is requesting reimbursement for the entire premium, taking the position that the Department remains obligated to participate in the premium costs in accordance with the contract, that they have incurred additional costs in carrying the cost of the Department's share since 2009, and that they are agreeing to a policy with lesser coverage value than the initial policy which may create some exposure to claims made by sub consultants that the initial policy coverage should be maintained.

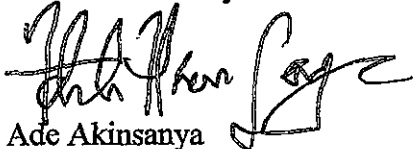
Tony Anziano
January 20, 2011
Page 3 of 3

Both the State Contract Manager and DPAC have reviewed the Contract, various documents and analysis performed by both the State and TYLMN. It is our opinion that the Contract 59A0040 required Project Specific Professional Liability Insurance and the State is obligated to pay at least 70% to 80% of the premium cost associated with the new policy, based on the executed contract and task orders. Since TYLMN had to purchase this new policy some time ago, the Department may be responsible for other costs (finance charges, fees, etc.) incurred by TYLMN.

Recommendation

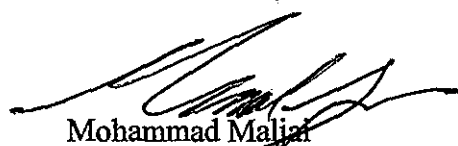
The State should pay a minimum of 70% to 80% of the total cost of the premium.

Recommended by:



Ade Akinsanya
Contract Manager
Toll Bridge Program

Recommended by:



Mohammad Malik
A&E Coordinator
DPAC

cc: Ken Terpstra
Brian Maroney
Hasan El – Natur
Steven Hulsebus
File

M e m o r a n d u m

Date : January 12, 1998

File No.:

To : Sue Jobe
Department of Transportation
FAX #227-6155 Total Pages Faxed:

From : Department of General Services
Office of Risk and Insurance Management
1325 J Street, Suite 1800, Sacramento, CA 95814

Subject: **SAN FRANCISCO-OAKLAND BAY BRIDGE (EAST BAY SEGMENT)
INSURANCE REQUIREMENTS FOR DESIGN CONTRACT**

Thank you for contacting our office to discuss appropriate insurance requirements to incorporate into the Design Contract being prepared for this upcoming construction project. Liability exposures are significant in a project of this magnitude and type and need to be analyzed differently than routine construction projects the State has entered into in the past. In the event of a design error, the State would experience considerable liabilities for loss of life, property damage and reduced revenue to support bond financing, let alone the costs to correct any inherent structural defects.

The primary reason for requiring those we contract with is to maintain certain types of insurance to ensure a reliable source of funds to meet the contractual responsibilities passed along to the contractor. While it appears as though our Prime Contractor is one of the largest and most experienced in their field, requiring that appropriate insurance coverage be maintained by them will provide the State with some guarantee that protection will be readily available in the event of a loss.

As you know, our office is working on alternative insurance programs that may benefit the State in the actual construction of this project. One of the options, an Owner Controlled Insurance Program, would require both legislation as well as a feasibility study to determine the specific benefits the State may expect on this particular project. Normally, this type of program incorporates only Workers' Compensation and General Liability insurance coverages within the master program. We feel the design phase may also benefit from use of an alternative approach.

This design contract involves not only the prime contractor in the design of this project, but contemplates approximately 20-30 additional design consultants. It is our understanding that projected design contract costs are estimated to run approximately \$55 million and that total construction costs for the project should be in the neighborhood of \$2.5 billion. Our contract requires that the Prime Contractor be responsible for design defects and any resulting loss that the State might experience. Further, we expect that they also be responsible for design defects that may be the responsibility of any sub-contractors that participate on the Design Team. The Professional Liability insurance coverage is unique and there are a couple of ways in which we feel this could be addressed as outlined below.

ATTACHMENT 1

①

Individual Policies for Each Member of Design Team

Unlike other insurance coverages, a professional liability policy written to cover a specific design firm will not cover liabilities arising out of work performed by sub-contractors. Therefore, it becomes necessary for the State to require and track professional liability insurance for each member of the Design Team. A decision needs to be made as to the amount of coverage that should be required of each member depending upon their involvement on the team.

Project Specific Policy

This is a single policy that would be purchased by the Prime Contractor providing professional liability coverage for all members of the design team. Some of the major benefits of utilizing this approach include:

- Confidence that all members have coverage
- A higher limit of protection can be maintained for the project and is not dependent on each members ability to purchase a certain limit
- Cost savings would be generated due to increased purchasing power of the group
- Professional Liability is written on a "claims-made" basis. This means that a policy must be in effect at the time a claim is made. The statute for issues involving construction defects is 10 years from the date of substantial completion. A project policy can be written for at least a 10-year period, and perhaps longer. This affords the State further assurance that coverage will be in effect when it is needed.
- Most importantly, there is one source for recovery on all claims involving design defect. This eliminates the typical adversarial position between the owner, prime contractor, and sub-contractors during litigation to determine "who" is at fault for the defect and resultant damage. Legal fees are minimized with a unified defense and claims are resolved more quickly and cost effectively.

Other State Projects

To give you some general idea of what the State has done on other projects, we have collected the following information for your review:

Project	Project Cost	Professional Liability Coverage Required
San Francisco Civic Center	\$350,000,000 (Includes design costs of \$56,000,000)	\$5,000,000 Required of each individual design team member
Elihu Harris Building	\$125,000,000	\$25,000,000 Project Specific Policy
Junipero Serra Building	\$50,000,000.	\$10,000,000 Project Specific Policy

(2)

Enclosed you will find draft language for your review. We would very much like to meet with your staff, including those involved on the project from your legal department, to fine tune this prior to use. The insurance guidelines that we have prepared do include requirements for General Liability, Auto Liability, and Workers' Compensation insurance.

The language we are proposing will allow the Professional Liability exposures for this project to be addressed in the most effective way possible for the State as well as the members of the Design Team. Further, since the State will ultimately be responsible for payment of all insurance premiums associated with this project, we feel the Project Specific approach will allow the State to partner with the Prime Contractor in determining the appropriate level of protection taking premium costs into consideration.

Thank you again for allowing our office to participate in this process. We would welcome the opportunity to meet with your staff to discuss these issues at greater length.



SUSAN PIPES
Associate Risk Analyst
(916) 322-5289
(916) 327-5776 FAX

SP/sp

cc: **Ralph Maurer, Chief, Office of Risk & Insurance Management**
Gary Estrada, Staff Risk Manager, Office of Risk & Insurance Management

3

Insurance Requirements

Contractor shall furnish to State evidence of insurance as follows:

COMMERCIAL GENERAL LIABILITY

Contractor shall maintain general liability with limits of not less than \$1,000,000. per occurrence for bodily injury and property damage liability combined. The policy shall include coverage for liabilities arising out of premises, operations, independent contractors, products, completed operations, personal & advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability

The policy must include Department of Transportation and The State of California, its officers, agents, employees and servants as additional insureds, but only insofar as the operations under the Contract are concerned.

AUTOMOBILE LIABILITY

Contractor shall maintain motor vehicle liability with limits of not less than \$1,000,000. per accident. Such insurance shall cover liability arising out of a motor vehicle including owned, hired, and non-owned motor vehicles.

WORKERS' COMPENSATION

Contractor shall maintain statutory workers' compensation and employer's liability coverage for all its employees who will be engaged in the performance of the Contract, including special coverage extensions where applicable. Employer's liability limits of \$1,000,000 shall be required.

PROFESSIONAL LIABILITY INSURANCE

Prime Contractor shall maintain on behalf of the Design Team a Project Specific Professional Liability Insurance policy providing protection for all members of the design team. Cost proposals shall be submitted to the State for alternate limits of coverage as follows: (\$10,000,000, \$15,000,000, \$20,000,000). The State shall be involved with the Prime Contractor in selection of the appropriate limits and deductibles to be purchased. Policy selected shall contain provisions providing for Owners Interest Defense Costs to be included.

Professional Liability Insurance shall be maintained throughout the term of the Design Agreement and for five (5) years following Substantial Completion. If available in the market, proposals should also include options for up to ten (10) years following Substantial Completion.

Evidence of professional liability insurance shall be furnished no later than sixty (60) days prior to the commencement of the Design Phase.

OR

Professional Liability Insurance shall be maintained throughout the term of the Design Agreement and for five (5) years following Substantial Completion. Evidence of professional liability insurance shall be furnished no later than sixty (60) days prior to the commencement of the Design Phase. The professional liability insurance shall be specific to this Project, and cover claims resulting from professional errors and omissions of Design Contractor, in an amount of not less than \$10,000,000. Any other members of the Design Team involved shall maintain professional liability insurance covering claims resulting from professional errors and omissions in connection with the work provided in an amount of not less than \$2,000,000.

Prepared on: 01/12/98
Office of Risk & Insurance Management

conwayl.doc

4

GENERAL REQUIREMENTS

Insurance Companies must be acceptable to DGS/ORIM. If self-insured, review of financial information may be required.

Coverage needs to be in-force for complete term of contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least 10 (ten) days prior to the expiration of this insurance. This new insurance must still meet the terms of the original contract

Insurance policies shall contain a provision that states that coverage will not be cancelled without 30 days prior written notice to the State.

Contractor is responsible for any deductible or self-insured retention contained within the insurance program.

In the event Contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this Contract upon the occurrence of such event, subject to the provisions of this Contract.

Any insurance required to be carried shall be primary, and not excess, to any other insurance carried by the State.

5

Prepared on: 01/12/98
Office of Risk & Insurance Management

contract.doc



MEMORANDUM

Date: August 20, 1998

To: Ade Akinsanya, Senior Bridge Engineer
Department of Transportation
Division of Structures
Consultant Contract Management Branch
1801 30th Street
Sacramento, CA 94274

From: Department of General Services
Office of Risk and Insurance Management
1325 J Street, Suite 1800
Sacramento, CA 95814

Subject: EASTERN SPAN-BAY BRIDGE
PROFESSIONAL LIABILITY INSURANCE

In follow-up to our meeting yesterday to discuss issues involving the Design Build Team and Professional Liability Insurance, below are specific points which we feel should be kept in mind during your negotiations today:

- Insurance premium costs, regardless of specific type of coverage, (General Liability, Professional Liability, Auto Liability, Workers' Compensation, etc.), are always factored into the overhead costs of those that we contract with. On most contracts this overhead is simply included as part of the bid submitted to us. On design contracts, where we are selecting a firm based on qualification, not price, this overhead is a "negotiated" item. This project should be viewed no differently than others in this respect. The magnitude of the project, as well as the cost of the insurance, are simply larger and therefore more visible in the negotiations.
- The insurance requirements outlined in our contracts is intended to be a "minimum" amount of coverage the state requires be maintained for a given project. It is the responsibility of each vendor to determine the appropriate amount of insurance protection they feel is necessary to protect their firm's assets. This amount of insurance protection will differ depending on the firm's appetite for "risk", assets, and the potential liability based upon the work being performed. For the various reasons discussed in our meeting, including accelerated and complexity of design, use of multiple team members, and politically sensitive nature of the project, the design team feels it absolutely necessary to purchase higher limits of insurance coverage than they normally retain.

ATTACHMENT 2

Ade Akinsanya

-2-

August 20, 1998

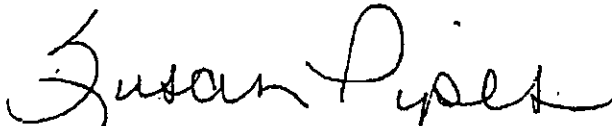
- It is not the responsibility of the state to purchase this insurance nor make a decision about the specific terms of any coverage. There are advantages to the state if the design team elects to purchase a Project Specific Professional Liability Policy including:

- Higher limits of protection provided for a specific claim
- Guarantee that policy will remain in force for specified period of time (in this case 12 years)
- All members of design team included for coverage
- Elimination of litigation between team members to determine fault
- Less money spent on defense costs-more money available for solutions

- Similar concerns and considerations would exist for any bidders for this particular project and the department should understand this before beginning negotiations with other bidders.

It is our recommendation that serious consideration be given by the Department of Transportation to include, as part of reimbursable overhead costs, the premium charges for Professional Liability Insurance at a significantly higher limit of coverage than is the minimum limit required by our contract. Further, it is our opinion that a policy limit in the range of \$20,000,000-\$25,000,000 is not out of line given the magnitude of this project.

We look forward to providing you with any additional information you deem necessary to assist you with these negotiations.



SUSAN D. PIPES
Associate Risk Analyst
#322-5289

SP:sp

enclosure

STATE OF CALIFORNIA
STANDARD AGREEMENT—ATTORNEY GENERAL
STD. 2 (REV. 5-91)

APPROVED BY THE

CONTRACT NUMBER 59A0040	AM. NO.
TAXPAYERS FEDERAL EMPLOYER IDENTIFICATION NUMBER 94-3290055	

THIS AGREEMENT made and entered into this 14th day of January, 1998,
State of California, by and between State of California, through its duly elected or appointed, qualified and acting

TITLE OF OFFICER ACTING FOR STATE Agency Secretary	AGENCY Business, Transportation and Housing
---	--

, hereafter called the State, and

CONTRACTOR'S NAME
T. Y. Lin International and Moffatt & Nichol Engineers, a Joint Venture hereafter called the Contractor.


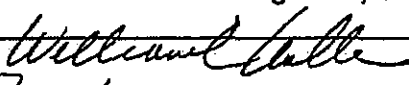


WITNESSETH: That the Contractor for and in consideration of the covenants, conditions, agreements, and stipulation of the State hereinafter expressed, does hereby agree to furnish to the State services and materials as follows: (Set forth service to be rendered by Contractor, amount to be paid Contractor, time for performance or completion, and attach plans and specifications, if any.)

Article I - Introduction

- A. The work to be performed under this contract is described in Article II, entitled Scope of Services/Deliverables and the Consultant's Cost Proposal dated January 9, 1998. The Consultant's Cost Proposal, Attachment A, is attached hereto and incorporated by this reference. If there is any conflict between the Consultant's proposal and this contract, this contract shall take precedence.
- B. The Project Manager for the Consultant will be: Allen L. Ely, phone (415) 291-3700.
- C. The Contract Manager for the State will be: Ade Akinsanya, phone (916) 227-8294.
- D. The Contractor is hereafter called the Consultant.

CONTINUED ON 41 SHEETS, EACH BEARING NAME OF CONTRACTOR AND CONTRACT NUMBER.
The provisions on the reverse side hereof constitute a part of this agreement.

IN WITNESS WHEREOF, this agreement has been executed by the parties hereto, upon the date first above written.

STATE OF CALIFORNIA		CONTRACTOR	
Business, Transportation and Housing Agency		CONTRACTOR (IF OTHER THAN AN INDIVIDUAL, STATE WHETHER A CORPORATION, PARTNERSHIP, ETC) T. Y. Lin International and Moffatt & Nichol Engineers, a Joint Venture	
BY (AUTHORIZED SIGNATURE) 		BY (AUTHORIZED SIGNATURE)  	
PRINTED NAME OF PERSON SIGNING Jean R. Dunphy		PRINTED NAME AND TITLE OF PERSON SIGNING William E. Kallas, President - T.Y. Lin International Robert D. Nichol, President - Moffatt & Nichol Engineers	
TITLE Agency Secretary		ADDRESS 825 Battery Street San Francisco, CA 94111	
AMOUNT ENCUMBERED BY THIS DOCUMENT 55,000,000.00	PROGRAM/CATEGORY (CODE AND TITLE) TRANSPORTATION	FUND TITLE TBSRA Bond Funds	DEPARTMENT OF GENERAL SERVICES USE ONLY
RIOR AMOUNT ENCUMBERED FOR THIS CONTRACT	(OPTIONAL USE) FY97-98 \$13,500,000; FY98-99 \$24,500,000; FY99-00 \$5,700,000; FY00-01 \$3,390,000, FY01-02 \$3,390,000, FY02/03 \$3,390,000, FY03/04 \$1,130,000		
	ITEM 2660-001-042-20 510-584	CHAPTER 282 327	STATUTE 97 FISCAL YEAR 97/98
TOTAL AMOUNT ENCUMBERED TO DATE 55,000,000.00	OBJECT OF EXPENDITURE (CODE AND TITLE) 59-345-04-012000 Object Code 7232 SA0A0040		
I certify upon my own personal knowledge that budgeted funds are available for the purpose of the expenditure stated above		T.B.A. NO.	B.R. NO.
ACCOUNTING OFFICER 		DATE 1-21-98	
<input type="checkbox"/> STATE AGENCY		<input type="checkbox"/> DEPT. OF GEN. SER. <input type="checkbox"/> CONTROLLER	

☒ Exempt from DGS Approval per
Streets & Highway Code Article 4.9
Section 180.6

ATTACHMENT 3

Article II - Partnering

- A. The State encourages participation in a formal "Partnering" process with the Consultant and its subconsultants, to complete the contract services effectively and efficiently to the benefit of both parties. The purpose of this relationship will be to establish and maintain cooperative communication and mutually resolve conflicts quickly and at the lowest possible management level.
- B. The Consultant and its subconsultants may request the formation of such a "Partnering" relationship by submitting a request in writing to the Contract Manager after approval of the contract. If the Consultant's request for "Partnering" is approved by the State, scheduling of a "Partnering" workshop, selecting the "Partnering" facilitator and workshop site, and other administrative details shall be as agreed to by both parties.
- C. The costs involved in providing a facilitator and a workshop site will be borne equally by the State and the Consultant. The Consultant shall pay all compensation for the wages of the facilitator, and expense for obtaining the workshop site. The State's share of such costs will be reimbursed to the Consultant in a Task Order written by the Contract Manager. Markups will not be added. All other costs associated with the "Partnering" relationship will be borne separately by the party incurring the costs.
- D. Establishment of a "Partnering" relationship will not change or modify the terms and conditions of the contract and will not relieve either party of the legal requirements of the contract.

Article III - Statement of Work

- A. The Consultant shall perform Architectural and Engineering (A&E) services including comprehensive and detailed analysis, studies, reports and PS&E development of two alternatives being considered for the replacement of the east spans of the San Francisco-Oakland Bay Bridge. The replacement structure(s) will have five lanes with standard shoulders on both the westbound and eastbound respectively.
- Section 3*
B. Once the preferred alternative is selected, the Consultant will perform comprehensive A&E services leading to a complete Structure Plans, Specifications and Estimates (PS&E) package(s). In addition, services during construction will be required for the duration of the construction phase. The PS&E packages(s) will be used by the State for the structures portions of construction contract(s) to build the Project described herein. It is anticipated that the contract will be divided into three major phases.
 - 1. **Phase One** - Under Phase One, which will be an On-Call portion of the contract and the work will be detailed in Task Orders, the Consultant shall perform A&E services to provide 30% PS&E packages for two alternatives. One A&E design team will study, analyze and prepare plans, specifications, and detailed cost estimates for a cable stayed structure(s), long span skyway structure(s) and

other structure elements up to a 30% design level. Another separate and independent A&E design team will study, analyze and prepare plans, specification, and detailed cost estimates for a self anchored suspension structure(s), long span skyway structure(s) and other structure elements up to a 30% design level. Also, the design teams will be required to analyze and estimate both alternatives with and without bicycle/pedestrian facilities. The purpose of the 30% PS&E is to resolve enough engineering, architectural and economic issues so that a final type selection (preferred alternative) can be made. The 30% PS&E cost proposal shall be identified as Attachment A and becomes part of this agreement by this reference. At any time prior to completion of the 30% PS&E, the State reserves the right to proceed with one of the alternatives and cease work on the other(s).

2. **Phase Two** - Once the preferred structure(s) is chosen, Phase Two of the PS&E work will begin and will include the completion of the 100% PS&E for the chosen alternative. This work will include A&E services such as detailed design and analyses (linear and limited nonlinear), technical studies and reports, lab testing of scaled models, and final contract plans, specifications and cost estimates. More than one PS&E package may be required during this phase. Phase Two will be a firm fixed price portion of this contract. A Task Order and Cost Proposal for the remaining PS&E work detailing milestones of the fixed price PS&E portion of the contract will be negotiated and issued once agreed upon. Negotiations for the firm fixed price task order will be conducted with the Consultant. The resultant Task Order and Cost Proposal shall be identified as Attachment B and shall become part of this contract by this reference. If the State and the Consultant cannot come to an agreement within the time schedule set by the State, after negotiations commence, all Consultant work product, including, but not limited to, calculations, documents, reports, electronic files and engineering studies shall be transferred into State's possession, and this Agreement shall terminate.

3. **Phase Three** - Perform On-Call bidding and construction support services as needed. Task orders will be issued detailing milestones and scope of work required. The Consultant will utilize staff with extensive prior design experience and knowledge from the Phase Two portion of this contract for this construction support service phase. [Rates of compensation will be those included in Attachment A, Cost Proposal.]

C. LOCATION AND DESCRIPTION

1. At present, several alignments and structure types have been proposed that require further study before an alignment and type selection can be made. The Consultant will be required to simultaneously investigate, study, and perform PS&E development of two alternatives to facilitate the selection of structure type by the State. The Consultant will be required to deliver a complete PS&E package(s) for the selected alternative. In general, the proposed project will be

The Consultant and any subconsultants shall permit the State and the FHWA to review and inspect the project activities at all reasonable times during the performance period of this contract including review and inspection on a daily basis.

Article XXI - Safety

- A. The Consultant shall comply with OSHA regulations applicable to Consultant regarding necessary safety equipment or procedures. The Consultant shall comply with safety instructions issued by the District Safety Officer and other State representatives. Consultant personnel shall wear white hard hats and orange safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Section 591 of the Vehicle Code, the Department has determined that within such areas as are within the limits of the project and are open to public traffic, the Consultant shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. The Consultant shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.
- C. Any subcontract, entered into as a result of this contract, shall contain all of the provisions of this Article.

Article XXII - Insurance

Consultant shall furnish to State evidence of insurance as follows:

- A. Consultant shall furnish to the State Certificates of Insurance for the minimum coverage set forth below. Consultant shall be fully responsible for all policy deductibles and any selfinsured retention. The required insurance shall be provided by carriers authorized to do business in California. Certificates of Insurance may be provided individually for each of the Consultant Joint Venture partners.
- B. Types and Amount of Coverage:
 - 1. Workers Compensation and Employers Liability insurance in accordance with statutory requirements.
 - 2. General Liability insurance in an amount not less than **\$1,000,000.00** per occurrence combined single limit.
 - 3. Automobile liability coverage of not less than **\$1,000,000.00** per accident.
 - 4. Professional Liability insurance in an amount not less than **\$1,000,000.00** per claim and **\$2,000,000.00** in the aggregate.

- C. The insurance above shall be maintained in effect at all times during the term of this contract. Failure to maintain the required coverage shall be sufficient to permit the State to terminate this agreement for cause, in addition to any other remedies the State may have available. Additionally, Consultant shall maintain, or make a good faith effort to maintain, the Professional Liability insurance for a period of three years after completion of its performance under the agreement.
- D. The Certificates of Insurance shall provide:
 - 1. That the insurer will not cancel the insured's coverage without 30 days prior written notice to the State.
 - 2. That the State of California, its officers, agents, employees, and servants are included as additional insureds, but only insofar as the operations under this contract are concerned and only for the General Liability and automobile Liability coverage required in B.2 and B.3, above.
 - 3. That the State will not be responsible for any premiums or assessments on the policy.
- E. A project specific Professional Liability Insurance Policy may be required as part of the Phase II and Phase III portions of this contract. Limits and premium payments for this policy will be negotiated as part of Phase II if the Policy is required.

Article XXIII - Ownership of Data

- A. Upon completion of all work under this contract, ownership and title to all reports, documents, plans, specifications, and estimates produced as part of this contract will automatically be vested in the State and no further agreement will be necessary to transfer ownership to the State. The Consultant shall furnish the State all necessary copies of data needed to complete the review and approval process.
- B. It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine readable form, are intended for one-time use in the construction of the project for which this contract has been entered into.
- C. The Consultant is not liable for claims, liabilities or losses arising out of, or connected with, the modification or misuse by the State of the machine readable information and data provided by the Consultant under this agreement; further, the Consultant is not liable for claims, liabilities or losses arising out of, or connected with, any use by the State of the project documentation on other projects, for additions to this project, or for the completion of this project by others, excepting only such use as may be authorized, in writing, by the Consultant.

TASK ORDER NO. 3

Date: NOVEMBER 1, 1998
Consultant Firm: T.Y. Lin International and Moffatt & Nichol Engineers,
a Joint Venture
Contract No.: 59A0040
Project Title: San Francisco – Oakland Bay Bridge East Span
Seismic Safety Project
EA: 04-012001

I. Task Order Description

<u>Structure Location</u>	<u>Bridge Number</u>	<u>Bridge Name</u>
04-SF-80-Var	34-0006	San Francisco – Oakland Bay Bridge

II. Scope of Services

Fixed-Price Task Order to provide final plans, specifications and estimates for construction of the San Francisco – Oakland Bay Bridge East Span Seismic Safety Project, as described in the type selection report and as approved by the Metropolitan Transportation Commission (MTC) at its June 24, 1998 board meeting. The San Francisco – Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project involves four construction packages: (1) Yerba Buena Island (YBI) Transition Segment (YBI Transition and Detour Structures and Main Span Suspension Bridge); (2) Skyway Structures; (3) Oakland Touchdown Structures; and (4) Demolition of the Existing East Span.

See also Article II of the Contract and attached Item (4) Technical Work Plan of this task order.

III. Reports and/or Meetings

The Contractor's Design Manager shall meet with the State's Contract Manager as needed to discuss progress on the project.

The Contractor shall submit a progress report including the previous month's total hours and summary to date as specified in the Contract. The progress report will document all meetings and communications, and will address actual or anticipated problems with project delivery.

IV. Period of Performance

Work under this Task Order shall begin on November 1, 1998 and terminate on June 30, 2004.

V. Task Schedule

<u>Schedule</u>	<u>Dates</u>
Issue Task Order	July 1, 1998
Negotiate Cost Proposal	October 27, 1998
Award Task Order	October 30, 1998
Notice to Proceed	November 1, 1998

VI. Project Schedule

Submittal	YBI/Main	Skyway	Oakland	Demolition
45%	01/15/99	01/15/99	01/15/99	01/15/99
65%	05/15/99	07/15/99	08/02/99	08/02/99
85%	08/30/99	11/02/99	01/15/00	01/15/00
90%	10/28/99	01/28/00	03/30/00	03/30/00
100%	12/27/99	03/27/00	05/26/00	05/26/00
Final	02/02/00	05/03/00	07/05/00	07/05/00
Expedite	TBD	TBD	TBD	TBD

VII. Insurance

See Article XXII of this Contract and see attached Item (3) Insurance of this Task Order.

VIII. Cost


The Contractor will be reimbursed on a lump sum basis by the State under this Task Order for services performed in accordance with the attached Items (1) Cost Summary and (2) Payment Schedule of this Task Order. The lump sum amount for this Task Order shall be \$32,600,000.00.

IX. Project Coordinator

The Project Coordinator from the State for this Task Order will be
Ade Akinsanya, at (916) 227-8294.


X. Signature

I certify that this Task Order and attachments comply with the provisions of
Contract No. 59A0040, are necessary for the satisfactory completion of the
product(s) contracted for, and that sufficient funding has been encumbered to
pay for this work.

 11/2/98

Ade Akinsanya
State Contract Manager

I certify that this Task Order and attachments, are within the scope of the project
and are necessary for the successful completion of the project.

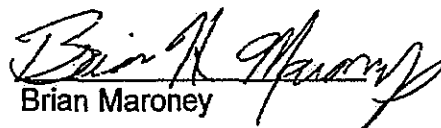
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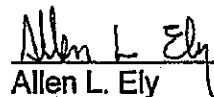
Antonio M. Marquez
Chief, Consultant Contract Management Branch

IN WITNESS WHEREOF, this Task Order has been executed under the
provisions of Contract No. 59A0040, between the State of California, Business,
Transportation and Housing Agency, and T.Y. Lin International and Moffatt &
Nichol Engineers, A Joint Venture. By signature below, the parties hereto agree
that all terms and conditions of this Task Order and Contract No. 59A0040, shall
be in full force and effect.

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION
AND HOUSING AGENCY

T.Y. LIN INTERNATIONAL AND
MOFFATT & NICHOL ENGINEERS,
A JOINT VENTURE

BY: 
Brian Maroney

BY: 
Allen L. Ely

TITLE: SFOBB,
State Project Manager

TITLE: Design Manager

DATE: Nov. 2ND 1998

DATE: 2 Nov 98

ITEM 3 - INSURANCE

As provided for in Article XXII, paragraph E., additional insurance requirements have been negotiated for this Agreement as follows:

1. Consultant shall furnish to State evidence of insurance as follows:
 - 1.A Consultant shall furnish to the State Certificates of Insurance for the minimum coverage set forth below. Consultant shall be fully responsible for all policy deductibles and any self-insured retention (except those associated with Professional Liability Insurance). The required insurance shall be provided by carriers authorized to do business in California. A Certificate of Insurance will be provided for the Joint Venture.
 - 1.B Types and Amount of Coverage:
 - 1.B.1 Workers Compensation and Employers Liability insurance in accordance with statutory requirements.
 - 1.B.2 General Liability insurance in an amount not less than \$1,000,000.00 per occurrence combined single limit.
 - 1.B.3 Automobile liability coverage of not less than \$1,000,000.00 per accident.
 - 1.B.4 Project specific Professional Liability insurance in an amount not less than \$15,000,000.00 per claim and \$15,000,000.00 in the aggregate.
 - 1.C The insurance above shall be maintained in effect at all times during the term of this contract. Failure to maintain the required coverage shall be sufficient to permit the State to terminate this agreement for cause, in addition to any other remedies the State may have available. Additionally, Consultant shall maintain, or make a good faith effort to maintain, the Professional Liability insurance for a period of three years after completion of its performance under the agreement.
 - 1.D The Certificates of Insurance shall provide:
 - 1.D.1 That the insurer will not cancel the insured's coverage without 30 days prior written notice to the State.
 - 1.D.2 That the State of California, its officers, agents, employees, and servants are included as additional insureds, but only insofar as the operations under this contract are concerned and only for the General liability and automobile Liability coverage required in B.2 and B.3, above.
 - 1.D.3 That the State will not be responsible for any premiums or assessments on the policy.
 - 1.E A project specific Professional Liability Insurance Policy has been purchased to insure the professional services provided by the consultant under Phase I, Phase II & Phase III of the project.

- 1.F Caltrans will be named as additional insured under the policy for their vicarious liability arising from services provided by the Joint Venture.

2. PAYMENT OF SELF-INSURED RETENTION

- 2.A In the event that any claim is tendered under the Project Policy, any portion of any cost or expense arising out of or relating to any such claim (including, without limitation, all reasonable costs and expenses for investigation and defense of the claim [including attorneys' fees and expenses, payments to experts, court or arbitration costs] and any amounts paid in settlement or to satisfy a judgment) that the insurer declines to pay, in whole or in part, and contends that it is not paying because of the existence of a self-insured retention or deductible in the Project Policy, shall be paid equally by the State and Joint Venture, with each paying fifty percent (50%) of all such cost and expense. Any payments due under this subparagraph shall be due and payable sixty (60) calendar days from the date on which invoices or other appropriate documentation evidencing the cost or expense incurred is first delivered to the Party from whom payment is demanded.
- 2.B Should any claim referenced in subparagraph (a) above be adjudicated such that a written decision concerning the claim is entered in a proceeding to which both Caltrans and Contractor are Parties by any duly appointed arbitrator or panel of arbitrators or by any court of competent jurisdiction, and should such written decision find that one of the Parties (Caltrans or Contractor) has no liability with respect to the claim, but that the other Party is wholly or partially liable for the claim, then the Party who is found wholly or partially liable for the claim shall reimburse the other Party to the extent liable for all payments of cost or expense (as defined in subparagraph (a) above) that the other Party has made pursuant to subparagraph (a) above. Such reimbursement shall be paid in full within thirty (30) calendar days of such time as all possibility of appeal of the aforementioned written decision has been exhausted; however, interest due on any amount to be reimbursed under this subparagraph shall accrue at the legal rate for prejudgment interest then provided for under California law from the time that the aforementioned cost or expense was incurred until such time as the amount to be reimbursed is paid. For this purpose, the date "first issued" for an arbitration decision shall be the first date on which a signed copy of the decision is received by the Party owing the payment, and the date "first issued" for a court decision shall be the date on which the judgment relating to that decision is first filed.
- 2.C The requirements of subparagraphs (a) and (b) above shall apply only to any portion of any cost or expense arising out of or relating to any such claim that the insurer declines to pay, in whole or in part, and contends that it is not paying because of the existence of a self-insured retention or deductible in the Project Policy.

3. LIMITATION OF LIABILITY

The State hereby agrees that, notwithstanding any other provision of this Agreement, the total liability of the Joint Venture and its participants (including, without limitation, their officers, agents, employees and all the named insureds under the Project Policy) to the State for any injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to the Services to be performed under this Agreement from any cause or causes including, but not limited to, the Joint Venture's negligence, errors, omissions,

strict liability, breach of contract or breach of warranty (hereafter the "State's Claims") shall not exceed the total sum of one million dollars (\$1,000,000.00) to be paid by the Joint Venture in addition to the total sum paid on behalf of or to the Joint Venture by the Joint Venture's insurers in settlement or satisfaction of the State's Claims under the insurance policies applicable there. If no amount is paid on or behalf of the Joint Venture or to the Joint Venture by the Joint Venture's insurers in settlement or satisfaction of the State's Claim, then the Joint Venture's total liability to the State for any and all of the State's Claims shall not exceed the total sum of one million dollars (\$1,000,000.00). It is understood and agreed that this limitation of liability provision shall not apply to worker's compensation claims, employer's liability or automobile liability.

4. **CONTRACTOR'S INSURANCE – SPECIAL REQUIREMENTS**

Caltrans shall provide in each of its agreements with construction contractors on the project that each construction contractor shall indemnify the Joint Venture as designated herein to the same extent as the contractor shall indemnify Caltrans.

Caltrans shall provide in its agreements with all construction contractors on the project that construction contractor's liability policies shall be required to name T.Y. Lin International / Moffatt & Nichol Engineers, a Joint Venture, their respective affiliates, parent or affiliated corporations, directors, officers, partners, representatives, employees, consultants, subconsultants and agents, as additional insureds to the same extent that the State is named as an additional insured under the Standard Specifications applicable to its construction contracts, but only with respect to liability arising from the activities of the construction contractors.

If the State includes a requirement in the specifications to provide a waiver of subrogation on any applicable insurance policies, then the requirement shall be extended to include the Joint Venture and subconsultants.

If the State includes in its specifications a requirement that the Contractor's liability insurers are to include a joint and several liability clause in their policies, then the requirement shall be extended to include the Joint Venture and subconsultants.

Certificates of insurance and endorsements as required herein shall be provided by Construction Contractor's insurers to the following address:

T.Y. Lin International / Moffatt & Nichol Engineers, a Joint Venture
c/o Dealey, Renton & Associates
P.O. Box 12675
Oakland, CA 94604-2675
Attn: Julie Kwasniza

Certificates shall provide 30 days advance written notice of cancellation or nonrenewal and shall clearly specify the contractor's contract number under which services are provided to Caltrans and the name of the project.

SFOBB EAST SPAN SEISMIC SAFETY PROJECT
CONTRACT NO. 59A0040
PHASE II - FINAL PS&E

REVISED: October 29, 2003
PERIOD: September-03

TASK 3 - PAYMENT SCHEDULE

Billing Month	Program Management and Administration 1	Meetings and Coordination 2	Global Design Considerations 3	YBI Transition Structures and Detour Final Design 4	Main Span Suspension Bridge Final Design 5	Skyway Structures Final Design 6	Oakland Approach Structures Final Design 7	Existing SFOBB East Span Demolition Final Design 8	Billing Amount	Cumulative
Nov-98 *	185,000	80,000	70,000	300,000	375,000	400,000	70,000	70,000	1,550,000	1,550,000
Dec-98 *	185,000	80,000	70,000	320,000	385,000	400,000	110,000	90,000	1,640,000	3,190,000
(Jan-99)	(1,352,000)	11,000	86,000	(185,000)	787,000	247,000	(42,000)	(74,000)	2,292,000	5,482,000
Feb-99	159,191	100,938	227,957	266,424	79,686	185,525	35,080	(86,000)	969,811	6,451,811
Mar-99	168,685	41,618	95,816	101,241	596,496	544,249	7	22,626	1,570,738	8,022,549
Apr-99	139,342	18,778	86,907	(33,044)	280,663	444,692	47,904	65,849	1,051,091	9,073,640
May-99	68,017	59,474	81,629	815,146	463,173	746,264	117,666	98,830	2,450,199	11,523,839
Jun-99	182,732	50,213	87,597	131,426	763,337	733,783	264,086	123,422	2,336,616	13,860,455
Jul-99	124,629	77,509	90,119	36,203	942,796	359,320	179,741	83,585	1,893,802	15,754,257
Aug-99	326,426	86,473	109,366	84,287	515,841	230,778	193,516	124,491	1,671,178	17,425,434
Sep-99	240,836	90,387	98,941	341,716	196,848	271,094	44,679	50,186	1,334,687	18,760,121
Oct-99	157,245	29,839	77,846	291,675	208,881	449,725	31,433	0	1,246,644	20,006,765
Nov-99	110,079	22,850	67,521	116,070	238,176	262,622	63,416	0	880,733	20,887,498
Dec-99	49,284	58,666	44,660	126,987	286,877	340,134	34,549	(0)	941,157	21,828,655
Jan-00	164,102	57,211	87,269	114,178	205,665	266,341	10,361	(0)	905,126	22,733,781
Feb-00	222,064	37,912	104,449	194,504	209,400	240,178	46,519	(0)	1,055,024	23,788,805
Mar-00	239,464	47,918	23,431	96,345	291,059	192,128	73,164	(0)	963,509	24,752,314
Apr-00	46,812	27,345	53,609	281,830	146,505	286,611	53,113	3,194	899,019	25,651,334
May-00	0	24,937	63,933	163,384	14,416	77,882	31,002	0	375,555	26,026,888
Jun-00	0	32,938	56,168	27,942	0	156,295	20,684	(3,194)	290,833	26,317,721
Jul-00	0	19,843	15,442	68,618	0	236,592	7,930	0	348,425	26,666,146
Aug-00	0	6,055	18,860	8,500	0	206,118	21,201	0	259,734	26,925,880
Sep-00	0	1,151	1,818	14,677	0	168,894	0	0	186,540	27,112,420
Oct-00	0	17,359	28,805	69,107	0	73,244	10,259	0	198,774	27,311,194
Nov-00	0	570	26,421	50,535	0	0	16,276	0	93,802	27,404,996
Dec-00	0	7,205	3,636	33,648	0	0	0	0	44,489	27,449,485
Jan-01	0	0	0	0	0	0	0	0	0	27,449,485
Feb-01	0	0	14,611	0	0	60,203	0	0	74,814	27,524,299
Mar-01	0	0	0	0	0	0	0	0	0	27,524,299
Apr-01	0	23,226	14,490	6,049	0	43,992	0	0	87,767	27,612,066
May-01	0	0	0	0	0	0	0	0	0	27,612,066
Jun-01	0	0	0	(5,825)	0	26,003	0	0	19,178	27,631,234
Jul-01	0	0	0	0	0	0	0	0	0	27,631,234
Aug-01	0	9,070	18,238	0	0	0	0	0	27,308	27,658,542
Sep-01	0	0	0	0	0	0	0	0	0	27,658,542
Oct-01	0	0	3,341	0	0	60,870	0	0	64,211	27,722,753
Nov-01	0	0	0	0	0	0	0	0	0	27,722,753
Dec-01	0	0	0	0	0	0	0	0	0	27,722,753
Jan-02	0	0	0	0	0	0	0	0	0	27,722,753
Feb-02	0	0	0	0	171,116	0	0	0	171,116	27,893,869
Mar-02	0	0	0	0	232,279	0	0	0	232,279	28,126,148
Apr-02	0	0	0	0	250,207	0	0	0	250,207	28,376,355
Jun-02	0	44,684	74,380	0	127,074	0	0	0	246,138	28,622,493
Jul-02	0	0	0	0	85,906	0	0	0	85,906	28,708,399
Aug-02	0	0	0	0	0	0	0	0	0	28,708,399
Sep-02	0	0	0	0	84,975	0	0	0	84,975	28,793,374
Oct-02	0	0	0	21,330	34,663	0	0	0	55,993	28,849,367
Nov-02	0	0	0	0	25,683	0	0	0	25,683	28,875,050
Dec-02	0	0	0	0	53,634	0	0	0	53,634	28,928,684
Jan-03	0	0	0	0	14,413	0	0	0	14,413	28,943,097
Feb-03	0	0	0	0	0	0	0	0	0	28,943,097
Mar-03	0	0	0	0	12,903	0	0	0	12,903	28,956,000
Apr-03	0	0	0	38,095	10,413	0	4,551	444	53,503	29,009,503
May-03	0	0	0	0	12,771	0	0	0	12,771	29,022,274
Jun-03	0	0	0	0	0	0	0	0	0	29,022,274
Jul-03	0	0	0	0	10,603	0	0	0	10,603	29,032,877
Aug-03	0	0	0	0	0	0	0	0	0	29,032,877
Sep-03	0	0	0	0	0	0	0	0	0	29,032,877
Oct-03	0	27,341	144,904	599,280	19,961	0	357,876	317,761	1,467,123	30,500,000
Total	4,120,827	1,192,512	2,058,181	4,595,328	8,133,420	7,709,535	1,803,024	887,195	30,500,000	30,500,000

Approved by: 
Ade Akinsanya, Contract Manager



Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** October 23, 2007

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5c
San Francisco-Oakland Bay Bridge
Item- Project Specific Insurance

Recommendation:

AUTHORIZE negotiation of a new project specific insurance policy at a total cost of up to \$7.7 million.

Cost:

\$7.7 million

Schedule Impacts:

N/A

Discussion:

The following will summarize the background, key issues, options, and cost to replace the project specific professional liability insurance policy procured for the San Francisco Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (ESSSP).

Background

In December 1998, a project-specific professional liability insurance policy was procured to cover the design contracts for the SFOBB seismic renovation projects through Ty Lin/Moffatt Nichol joint venture (JV) including 50-60 of their sub-consultants. This twelve year policy, set to expire on 12/17/2010, contains limits of \$50,000,000 per occurrence and \$50,000,000 aggregate for a premium of \$1,485,000. The policy term was based on a project schedule that anticipated project completion as early as 2006. The policy premium was split by the Department and the JV (70% / 30% respectively) and was based on \$1,800,000,000 in construction value, auditable at a rate of 0.825 per \$1,000 in construction value (if construction value increases, which it has, the premium increases according to the rate specified).

The policy covers bodily injury, property damage, claims expenses, and defense costs pertaining to alleged errors, acts, or omissions from failing to render professional services a reasonable professional service firm would provide in the same or similar circumstances. For claims to be considered under the policy, they must be made after the retroactive date of 12/17/1998 but

Memorandum

before the expiration date of 12/17/2010. The most likely sources of claims will come from: (a) contractors alleging cost overruns and time delays and/or (b) third party individuals, such as the traveling public. Construction claims may name the design team who look to their professional liability policy to defend the claim(s) and to fund any settlements arising from such claim(s). The Department is an additional insured under this policy through an owner's indemnity endorsement which allows the Department to recover any defense costs and related judgments which may arise from claims against the JV. Therefore, the current carrier could assert that the Department is not be able to utilize this policy to recover monies from design disputes with the JV or its sub-consultants for this work.

Key Issues

There are a number of time-sensitive issues pertaining to this insurance policy. First and most importantly, due to the fact that the policy term was based on a schedule that has been superseded, the policy will expire long before the ESSSP work is accepted and completed. The Department needs to decide how it will fund any professional liability claims which may arise after 2010 during the construction phase and finally when the new East Span is open to the traveling public. Letting this policy expire will leave the JV without a financial mechanism to fund any professional liability claims arising from the East Span project. It will also leave the Department and TBPOC funding partners with unknown liabilities pertaining to such claims since it is likely these entities will also be named in any construction-related suit.

Second, if the policy remains in force until 2010, the Department and JV will owe the insurance company roughly \$2,500,000 in additional premium as construction values in place as of 12/17/2010 will greatly exceed the original policy estimate of \$1,800,000,000. Consequently, this will leave the Department and JV without any coverage after 2010 and sunk costs of approximately \$4,000,000 (\$1,485,000 policy premium plus estimated \$2,500,000 final audit premium).

Third, the JV and its sub-consultants' insurance companies have excluded all work pertaining to the SFOBB East Span project from its practice professional liability insurance policies as a project-specific policy is in place. Coverage cannot be added to the JV's professional liability policy or its sub-consultants' policies. The JV has repeatedly expressed concern over pressure from its sub-consultants to resolve the issue of the professional liability policy now.

Finally, the insurance company, Lexington Insurance Company (subsidiary of AIG), will not extend the existing policy beyond 2010 with the same limits and pricing due to the current restrictive professional liability market. Lexington has offered, however, to cancel the current policy, waive any final audit, preserve the 1998 retroactive date, and re-write a new policy for a 10 year term. This new policy will cover all design-related work from 1998 – 2017. They offer this option now and not in 2008, 2009, or 2010.

Options Considered

1. ~~**Do Nothing.** The Department and the JV will face an additional premium of roughly \$2,500,000 in 2010 and receive no coverage for claims made after 12/17/2010. This will leave the Department and JV with sunk costs of \$4,000,000 without any funding mechanism to pay for professional liability claims.~~

2. **Wait Until 2010 to Negotiate New Terms.** Recent discussions with Lexington indicated they would not extend the current policy and they would not negotiate a new policy in 2010. They have no incentive to offer renewal terms in 2010 since they will collect a large additional audit premium while being “off” the risk entirely. Waiting until 2010 to negotiate with a different insurance company is impractical and cost-prohibitive since no insurer in the world will preserve a retroactive coverage date of 1998 to cover the entire project at a reasonable premium. If a new policy was negotiated in 2010 with a different insurance company, the new retroactive date would be 2010 which gives the JV and the Department little coverage as most of the design work occurred 1998 – 2010. A retroactive date of 2010 eliminates 12 years of design work as professional services occurring before the retroactive date are not covered.
3. **Procure a New Policy With a Different Insurance Company.** The world-wide insurance market for project professional liability insurance is very limited and restrictive. In the late 1990s, insurance companies underwrote many project policies only to suffer major losses on such policies years later. The most recent major loss affecting professional liability insurance capacity is the Big Dig project in Boston. Professional liability insurance capacity was recently tested by our OCIP insurance broker, Willis Insurance Services in San Francisco. They searched worldwide for an insurer to replace this policy only to receive consistent declinations. This leaves the Department with Lexington as the only option, worldwide, to insure this project.
4. **Let the Policy Expire in 2010 and Self-Insure the Risk.** The Department and JV may face large unknown future liabilities from this option. The potential for professional liability claims escalate as (a) construction approaches completion (cost overruns and recapture of costs from time delays) and, (b) the traveling public is allowed onto the new structure. The JV and its sub-consultants cannot self-insure such risks as they do not have the financial capacity to do so. They are also not able to buy their own insurance to cover this risk. No insurance also puts the JV in violation of their agreement with their sub-consultants. No insurance places the Department and its funding partners with unknown liabilities for such claims.
5. **Re-Negotiate a Replacement Program with Lexington Now.** This option allows the Department, the JV and its sub-consultants, and TBPOC funding partners to eliminate uncertainty and establish a secure funding mechanism to fund any professional liability claims over the next 10 years. Please refer to the attached “Replacement Terms and Cost” sheet which summarizes AIG and its related subsidiaries’ recent offer to replace this policy. It should be noted that the current level of coverage (\$50 million) simply is not available – the closest comparable coverage is limited to \$40 million and is achieved in layers of coverage rather than a single policy.

The Department’s insurance specialist is recommending that the TBPOC approve Option #5. This option, although considerably more expensive than the current policy, serves as the most prudent risk management tool to eliminate uncertainty pertaining to professional liability claims. Re-negotiating now will eliminate the expense of a large final audit as AIG has agreed to waive such audit if a new policy is procured today. Further, AIG is the only insurer in the world to offer replacement terms and the only insurer to preserve the critical retroactive date of 1998 which gives all parties continuous coverage from the inception of the project. Re-negotiating now

Memorandum

allows the Department to leverage the large final audit premium into continuous coverage for the remainder of the construction period and three years after work is completed when, statistically, most professional liability insurance claims arise. Re-negotiating a replacement policy now preserves our original agreement with the JV to procure this insurance and preserves the JV's agreement with its sub-consultants to maintain such insurance.

Ty Lin/Moffat Nichol JV, Et Al
SFOBB Project Professional Liability Insurance Policy
Replacement Terms and Cost

Coverage: Professional liability covering Ty Lin/Moffat Nichol Joint Venture and its sub-consultants' negligent errors, acts, or omissions in the course of rendering professional services for the SFOBB East Span Replacement Project. The State of California is an "additional insured" under the policy (via an indemnity endorsement).

Revised Policy Term: 12/1/2007 – 12/1/2017

Retroactive Date: 12/17/1998 (full prior acts)

Form: Claims-Made

Insurance Companies:

- Primary and First Excess Layer - Lexington Insurance Company
- Second Excess Layer - AIG Excess Liability Insurance Company, Ltd.
(Both wholly-owned subsidiaries of American International Group "AIG")

Policy Terms: No change with the exception of a semi-annual reporting requirement pertaining to cost over runs and time delays.

Total Limits: \$40,000,000 Per Occurrence/\$40,000,000 Total Aggregate:

- Primary Layer: \$15,000,000 – Lexington Insurance Company (US)
- First Excess Layer: \$10,000,000 – Lexington Insurance Company (London)
- Second Excess Layer: \$15,000,000 – AIG Cat Excess Liability Insurance Company

Self-Insured Retention: \$500,000 per occurrence

Premium:

- | | |
|------------------------|---|
| • Primary Layer: | \$ 5,250,000 |
| • First Excess Layer: | \$ 2,625,000 |
| • Second Excess Layer: | <u>\$ 2,650,000</u> |
| Total | \$10,525,000 (plus 3.25% taxes and fees) |



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

October 30, 2007, 1:00 PM – 4:00 PM
Caltrans Headquarters, Director's Conference Room,
1120 N Street, Sacramento, CA

Attendees: TBPOC Members: Will Kempton, Steve Heminger, and John Barna (via telephone);
PMT Members: Tony Anziano, Andy Fremier, and Stephen Maller;
Participants: Ali Banani, Michele DiFrancia, Beatriz Lacson, Peter Lee, Brian Maroney, Bart Ney, Dina Noel, Judis Santos, Bijan Sartipi, and Ken Terpstra

Convened: 1:14 PM

Items		Action
1. CHAIR'S REPORT <ul style="list-style-type: none">The Chair complimented the team for the timely distribution of the quarterly reports to the Legislature.		
2. CONSENT CALENDAR <p>BATA presented the following for approval.</p> <ul style="list-style-type: none">a. September 19, 2007 Meeting Minutesb. October 11, 2007 Conference Call Minutes		<ul style="list-style-type: none">The TBPOC APPROVED, with a 2-0 vote (in the absence of CTC Executive Director, who was apprised accordingly when he joined the meeting at 1:40 PM via telephone), the September 19, 2007 Meeting Minutes, and October 11, 2007 Conference Call Minutes.
3. PROGRESS REPORT <ul style="list-style-type: none">a. BATA presented the Draft October 2007 Monthly Progress Report for information.• Approval of this report by the TBPOC through delegated authority to the PMT is anticipated as soon as updated expenditure data and final comments are incorporated.		<ul style="list-style-type: none">The TBPOC confirmed APPROVAL of the September 2007 Monthly Progress Reports through their respective PMT members on October 2, 2007.

(continued)

Items	Action
<p>b) CCO No. 73 – \$62,958,990 for the balance of the remaining advance foundation work for the YBITS.</p> <ul style="list-style-type: none"> ○ The above two CCO's are included in the Implementation Memo approved by the TBPOC on July 27, 2007, which covers all currently known CCO's needed for the various elements of work on YBI Detour and Transition Structure advance work currently estimated at \$334 million. 	
<p>2) Budget Balance Beam (BBB)</p> <ul style="list-style-type: none"> • The Department presented an updated BBB based on a new risk management analysis performed consistent with the breakdown of the categories of work defined in the Implementation Memo. ○ The BBB shows a forecast at completion of \$400 million, \$66.56 million more than currently budgeted. A forecast revision in the 4th Quarter is anticipated with the likely occurrence of certain defined risks. 	<ul style="list-style-type: none"> • Revise the YBI Detour (SSD) forecast in the 4th Quarter. • Revise approach to forecasting schedule and budget. Present the current TBPOC protocol and how we approach forecasting to date and compare with how we would approach forecasting if we were to implement a new/revised method. Provide/walk through an example. • The PMT to develop approach and present to the TBPOC at the December 11, 2007 meeting.
<p>b. SAS and OTD General Update</p> <ul style="list-style-type: none"> • Agenda item deferred. 	
<p>c. Project-Specific Insurance</p> <ul style="list-style-type: none"> • The Department summarized the background, key issues, options and cost to replace the project-specific professional liability insurance procured for the SFOBB East Span Seismic Safety Project (ESSSP). • Comments/discussion included: ○ The Department recommends 	<ul style="list-style-type: none"> • The PMT to confer with the Joint Venture to determine what options are available to the TBPOC, and present again to the TBPOC for action on December 11, 2007.

(continued)


Items	Action
<p>that the TBPOC approve re-negotiating a replacement program now to obtain a reasonable amount of savings and maintain good relations with the Joint Venture.</p> <p>d. Jones Act</p> <ul style="list-style-type: none"> • Agenda item deferred. <p>e. Skyway Project Closeout</p> <ul style="list-style-type: none"> • Agenda item deferred. 	<ul style="list-style-type: none"> • The TBPOC requested that written memos be provided for the "For Information Only" agenda items.
<p>6. NEW BENICIA-MARTINEZ BRIDGE</p> <p>a. BASE Security System</p> <ul style="list-style-type: none"> • BATA presented, for TBPOC approval, the transfer of \$3.0 million in available contract contingency funds from the New Benicia-Martinez Bridge Contract (04-00603_) to a Director's Order to install the Bay Area Security Enhancement (BASE) System on the new bridge (04-4A740_). • Comments/discussion included: <ul style="list-style-type: none"> ○ The Department's District 4 Maintenance staff has been working with the California Highway Patrol to develop a security plan for the new bridge as part of the overall BASE Project. Currently, there is no security on the bridge. ○ The Department has requested an allocation of \$3.0 million to fund the installation of the BASE system on the new bridge. To expedite the work, the contract would be advertised as a "Director's Order". <ul style="list-style-type: none"> ➤ It was noted that invoking the Director's Order is a serious matter and not to be taken lightly. ○ BATA proposes to transfer previously allocated and 	<ul style="list-style-type: none"> • The TBPOC APPROVED the transfer of \$3.0 million from the New Benicia-Martinez Bridge Contract to install the Bay Area Security Enhancement (BASE) System on the new bridge, as presented, with the following direction to staff: <ul style="list-style-type: none"> ➤ Further analyze the use of Director's Order vs. the direct bid process, to ensure that the former is not being invoked needlessly.

(continued)

Items	Action
available Regional Measure I funds from the New Benicia-Martinez Bridge Contract (04-00603_) to the BASE Security Cameral Contract (04-4A740_). The transfer would not impact the overall budget for the New Benicia-Martinez Bridge Project. <ul style="list-style-type: none">o The BASE cameras would be installed at various locations around the bridge, and is not expected to impact traffic.	
7. Other Business <ul style="list-style-type: none">• The TBPOC reconvened in the Chair's office for a closed-door discussion.	

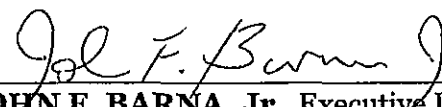
Adjourned: 4:00 PM

APPROVED BY:




WILL KEMPTON, Director
California Department of Transportation

12/11/07
Date



JOHN F. BARN, Jr., Executive Director
California Transportation Commission

12/11/07
Date



STEVE HEMINGER, Executive Director
Bay Area Toll Authority

12/11/07
Date



Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** December 6, 2007

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 5b

Item- San Francisco-Oakland Bay Bridge Updates
Project-Specific Insurance

RECOMMENDATION:

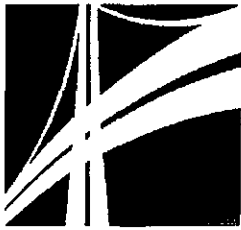
For Information Only

DISCUSSION:

The current status of the project-specific professional liability insurance policy procured for the SFOBB East Span Seismic Project (ESSSP) will be provided at the meeting.

Attachment(s):

N/A



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA RAPID AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

December 11, 2007, 10:00 AM – 1:00 PM
BATA/MTC Office, The Claremont Conference Room
101 Eighth Street, Oakland, CA

Attendees: TBPOC Members: Will Kempton, Steve Heminger, and John Barna
PMT Members: Tony Anziano, Andy Fremier, and Stephen Maller;
Participants: Ali Banani, Michele DiFrancia, Beatriz Lacson, Peter Lee, Brian Maroney, Bart Ney, Dina Noel, Judis Santos, Bijan Sartipi, Ken Terpstra, Jason Weinstein

Convened: 10:06 AM

Items		Action
1.	CHAIR'S REPORT <ul style="list-style-type: none">The Chair expressed praise to the seven Caltrans employees who each received a medal of valor from the Governor at a recent ceremony, and passed around a photo of the occasion.The Chair announced that the Department has completed negotiations with the Department of Fish and Game with a settlement in the amount of \$1.5 million, all of which will go into mitigation (not research).	
2.	CONSENT CALENDAR <ul style="list-style-type: none">a. BATA presented the October 30, 2007 Meeting Minutes for approval.	<ul style="list-style-type: none">The TBPOC APPROVED the October 30, 2007 Meeting Minutes.
3.	PROGRESS REPORT <ul style="list-style-type: none">a. BATA notified the TBPOC that the PMT, through delegated authority from the TBPOC, approved the October 2007 and November 2007 Monthly Progress Reports on November 5, 2007 and December 5, 2007, respectively.	<ul style="list-style-type: none">The TBPOC confirmed APPROVAL of the October and November 2007 Monthly Progress Reports through the PMT.

(continued)

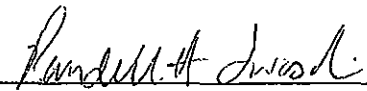
Items	Action
<p>down to the punch list. It is on track for substantial completion by the end of the year.</p> <ul style="list-style-type: none"> ○ The PIO summarized the media events planned for the Skyway completion milestone. ○ It was suggested that the media event and invitation to the Governor be deferred for a bigger milestone, possibly in April 2008, in conjunction with the West Approach completion, when there will be substantial, visible progress and continuity. ○ Possible uses of the Skyway after completion for activities/events were briefly discussed. 	<ul style="list-style-type: none"> • The PIO/CPT to develop and present options on how to proceed with Skyway and West Approach events.
<p>b. Project-Specific Insurance</p> <ul style="list-style-type: none"> • The Department reported that there are on-going discussions between the legal counsels of the Department and the design joint venture to come up with alternatives to procuring a full PSIP replacement policy for the East Span Seismic Safety Project (ESSSP). ○ The result of these discussions will be presented to the TBPOC at the January 31, 2008 meeting. 	
<p>c. Jones Act</p> <ul style="list-style-type: none"> • The Department provided the current status of the Jones Act issue. ○ A draft letter to the Department of Defense (DOD) requesting an administrative waiver was distributed to the TBPOC members and discussed. ○ The PMT will continue to evaluate options, explore opportunities to expedite resolution to avoid any lengthy project delay and implement, as 	<ul style="list-style-type: none"> • The TBPOC APPROVED the transmittal of the DOD letter when the Program Manager deems it appropriate. ○ The PMT to schedule a conference call for a TBPOC update.

(continued)

Items	Action
the progress of these projects will be put at risk.	
8. OTHER BUSINESS a. Memento <ul style="list-style-type: none">The BATA Executive Director presented the other two TBPOC members autographed, framed posters of the recently opened Congressman George Miller Bridge. b. Legislative Update <ul style="list-style-type: none">It was suggested that the February 21, 2008 Update be scheduled concurrent with the Bay Area caucus to get more people to attend.	<ul style="list-style-type: none">The PIO to coordinate with the CPT to get the Legislative Update on the agenda of the assembly caucus.


Adjourned: 1:40 PM

APPROVED BY:




WILL KEMPTON, Director
California Department of Transportation

1/31/08
Date



JOHN F. BARNA, Jr., Executive Director
California Transportation Commission

1/31/08
Date



STEVE HEMINGER, Executive Director
Bay Area Toll Authority

1/31/08
Date

Memorandum

TO: Toll Bridge Oversight Committee (TBPOC) **DATE:** October 29, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 7a4
Item San Francisco-Oakland Bay Bridge Updates
 TY Lin Insurance Update

Recommendation:

To be discussed at meeting

Cost:

To be presented by T.Y. Lin International/Moffat and Nichol Engineers, Joint Venture

Schedule Impacts:

N/A

Discussion:

In 1998, at the beginning of the consultant design phase of the East Span seismic Safety Project, the Department conferred with the Department of General Services (DGS) regarding the appropriate level and type of design liability insurance for the required consultant services. DGS raised the following issues:

- "Liability exposures are significant in a project of this magnitude and type and need to be analyzed differently than routine construction projects the State has entered into in the past;"
- Individual insurance coverage could be required for the prime design consultant and for each sub consultant, but this would require the Department to establish individual policy requirements for each consultant and to track the status of each individual policy over the course of the work;
- A single project specific insurance policy could be obtained that would cover all consultant services. Benefits of this approach were stated to be ready assurance of coverage for all consultants, a higher amount of coverage could be obtained, the policy would definitely be in existence for a defined period (as opposed to an individual policy that might end on termination of a single consultant's services), and a single source of recovery would be available,

Memorandum

avoiding counter claims and extensive adversarial proceedings between multiple parties in the event of a claim;

- "...since the State will ultimately be responsible for payment of all insurance premiums associated with this project, we feel the Project Specific approach will allow the State to partner with the Prime [consultant] Contractor in determining the appropriate level of protection taking premium costs into consideration," and

- other project specific policies procured by the State had a wide range of coverage in relation to project costs –

- \$10 million in coverage for a \$50 million project (Junipero Serra Building)

- \$5 million in coverage for a \$350 million project (S.F. Civic Center)

- \$25 million in coverage for a \$125 million project (Elihu Harris Building).

The Department included a requirement for a project specific insurance policy in the design contract executed with T.Y. Lin International/Moffat and Nichol Engineers, a Joint Venture (JV). The contract required a policy of "at least" \$15 million. A project-specific professional liability insurance policy was ultimately procured by the JV with limits of \$50,000,000 per occurrence and \$50,000,000 aggregate for a premium of \$1,485,000. The policy will provide coverage through December 2010, and this term was based on a project schedule that anticipated project completion as early as 2006. The JV agreed to pay a portion of the premium, with the premium cost split by the Department and the JV (70% / 30% respectively). The consultant services provided to date amount to \$136 million and an additional \$22 million has been recently added to the contract by amendment.

The JV approached the Department two years ago regarding the procurement of an extended or new insurance package to cover the period between 2010 and project completion, including a 3-year post construction period. A proposed replacement policy was presented to the TBPOC at the December 11, 2007 TBPOC meeting. The policy premium was in excess of \$10 million. The TBPOC directed staff and legal counsel to continue research and negotiation with the goal of a lower premium or other alternative to insurance. The JV has developed a revised policy proposal with a lower premium and will provide their revised proposal at the November 6, 2008 TBPOC meeting.

Attachment(s):

N/A

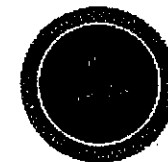
San Francisco – Oakland Bay Bridge, East Span Seismic Safety Project

Caltrans Contract No. 59A0040

Presented to the TBPOC 11/6/08

Project Insurance Continuation Program

OVERVIEW



TYLIN INTERNATIONAL

MN MOFFATT & NICHOL
ENGINEERS

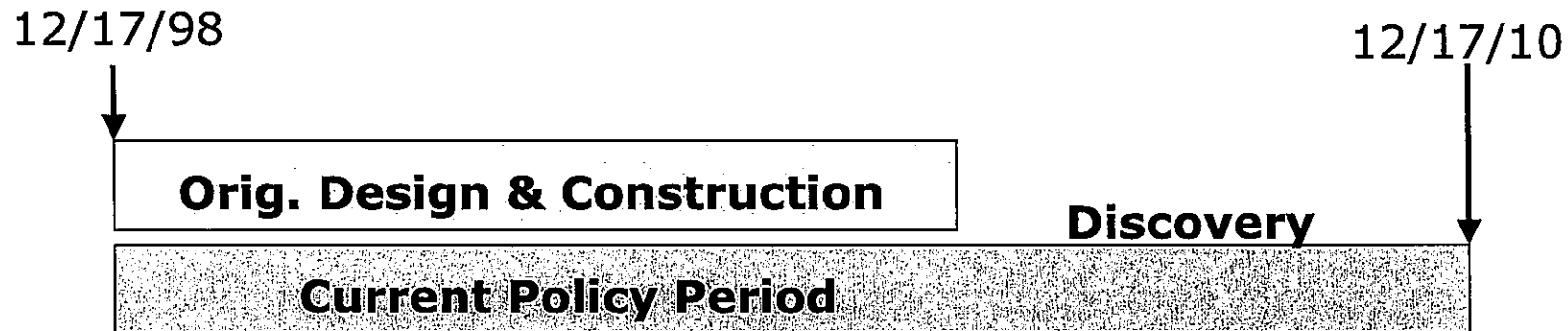
a joint
venture

Topics

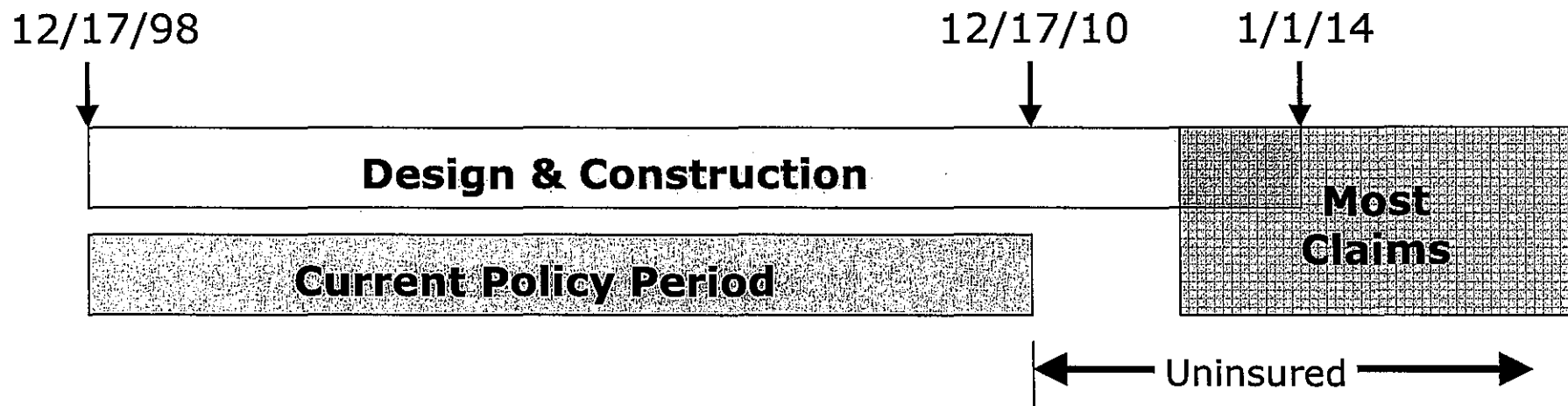
- I. Introduction
 - II. The Current Professional Liability Policy
 - III. What is our concern?
 - IV. Why do we need project specific insurance?
 - V. Rationale for Coverage Amount
 - VI. Resolution
 - VII. Costs for the Continuation Policy
-

II. The Current Professional Liability Policy

- Provides \$50 million in coverage for JV partners and **all subs**
- Coverage begins Dec. 17, 1998 and expires Dec. 17, 2010
- Based on original schedule – covers design, construction and discovery period



III. What is our concern?



- **Most claims occur at the end of a project.**
 - **Most likely – multiple small claims**
-

IV. Why do we need project specific insurance?

- Project was specifically excluded from individual practice policies
 - Firms can not operate uninsured
 - Team can focus on project – not risk
 - Allows Caltrans & JV to easily assign the best talent to the project
 - Experts on cable, welding, bearings, concrete, etc...
 - Allows Caltrans & JV to involve small businesses
 - Single point for claim management & resolution
 - Prevents finger pointing and disruptive intra team litigation
 - Protects against claims
 - Contractor Claims – Direct & Indirect Costs
 - Owner
 - Legal Costs
 - 3rd Party
-

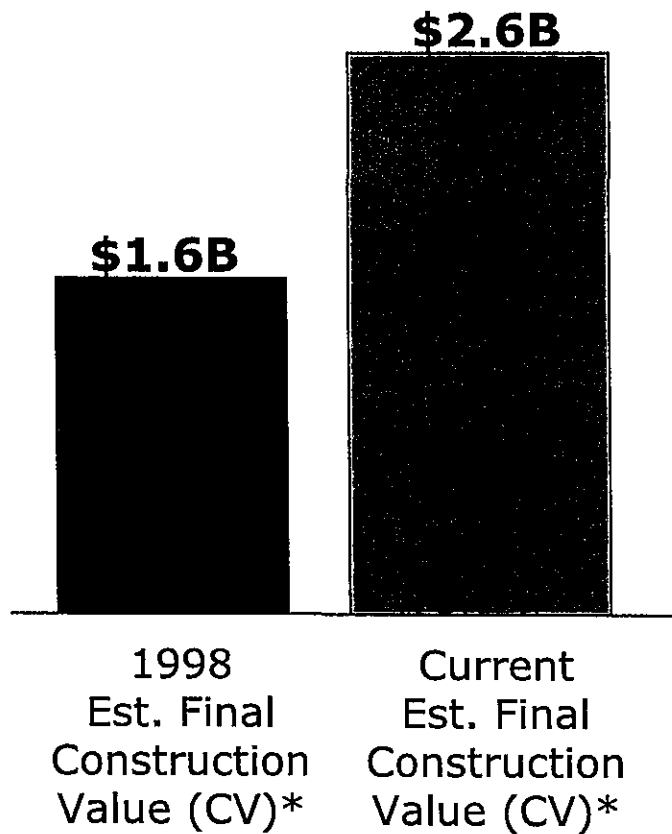
IV. Why do we need project specific insurance?

EXAMPLES of 3rd Party Claims

- ❖ Injured Construction Workers
 - ❖ Claims from Contractor's bonding companies
 - ❖ Injured users (vehicles, pedestrians & cyclists), or their survivors
 - ❖ Organizations which are impacted by a bridge closure or limited access
 - ❖ Injured post-construction maintenance personnel
 - ❖ Public Advocacy groups who participated in project decisions
 - ❖ Maritime exposure – use of navigable waters and damage to vessels
-

V. Rationale for Coverage Amount

Reason #1



In 1998, Caltrans and the JV evaluated the project and arrived at \$50M of coverage. This equals 3.1% of CV and is consistent with low end industry standards.

On this basis, today's coverage of \$50M would be 1.9%.

* Work associated with JV services

V. Rationale for Coverage Amount

Reason #1 cont.

Representative Sample Projects

Project	Construct. value	Coverage Limit	%
GG Bridge Retrofit	58M	5M	8.6
N. Halawa Valley, HI	77M	5M	6.5
Pier 400 in LA	225M	3M	1.3
Jamuna Bridge	220M	25M	11.4
SFIA Ground Transport Des.	260M	4M	1.5
Port Newark w/ P&O Ports	60M	10M	16.7
United Motors Facility	100M	5M	5.0
SF Main Library	96.5M	2.5M	2.6
Paris Casino LV	500M	10M	2.0
US-20 in Oregon	130M	10M	7.7

V. Rationale for Coverage Amount

Reason #2

The JV has entered into subcontracts with 130+ firms.
(originally <50 firms anticipated)

Each subcontractor joined the team understanding that \$50M of coverage would be in place for the duration of the project and beyond.

Subcontractors are dependent on the JV's Project Specific Professional Liability policy.

The JV has a contractual obligation to provide the subs with \$50M in coverage.

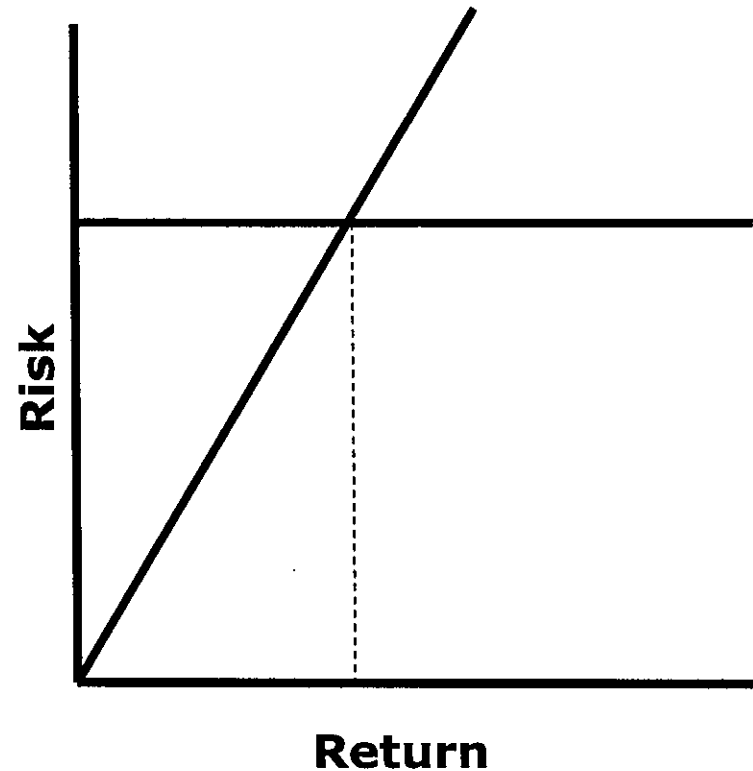
V. Rationale for Coverage Amount

Reason #3

In 1998, Caltrans and the JV evaluated the project's level of risk, based on estimated schedule, scope, type of structure, construction cost, overall fees, number of subs and insurance coverage.

The level of risk was then compared with the JV's tolerance for risk and ability to mitigate risk.

The contract insurance limit was established on this basis.



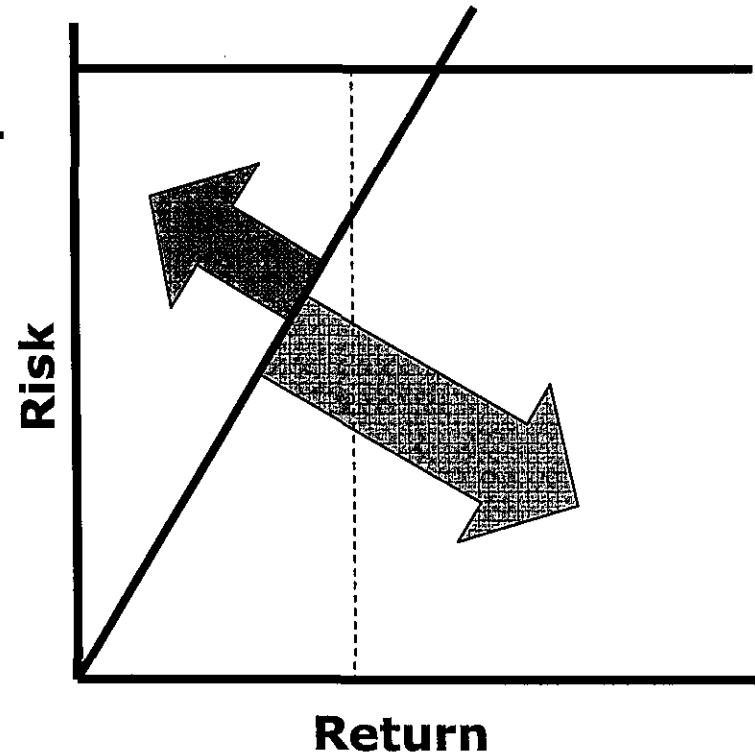
V. Rationale for Coverage Amount

Reason #3

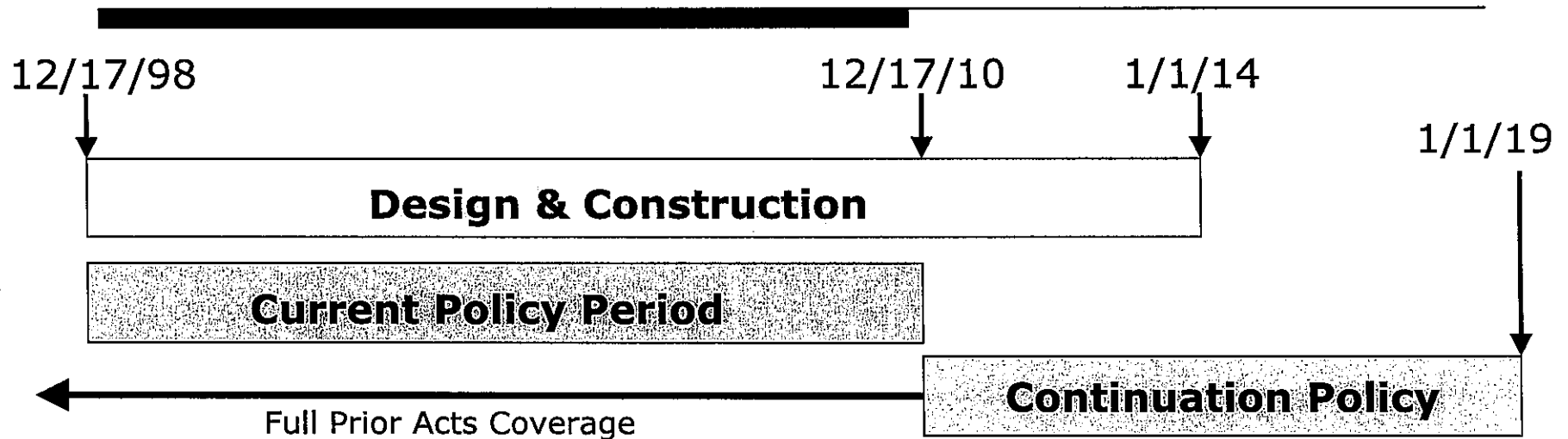
Less than \$50 million, risk will increase.

It is not responsible for us to operate above the red line.

In 1998 we entered into an agreement on this basis.



VI. Resolution



- **Maintain current policy through 12/17/10**
- **Purchase a \$50M Continuation Policy**
- **Coverage for JV Partners & Subconsultants (130+)**
- **Insurer requires the policy to be bound and paid by 12/1/08**

VII. Costs for the Continuation Policy

Premium

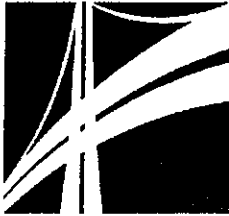
- JV – 1.26M
- State – 5M
- Due – 12/1/08

Deductible

- JV – 125k per claim for 3 claim max
- State – 375k for first 3 claims, 500k per claim thereafter
- Due – varies

Material Change Triggers

- JV & State – combined exposure ranging from 0 to 1.56M (variable sharing)
 - Due – 12/17/10
-



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

November 6, 2008, 10:00 AM – 1:00 PM
Caltrans Headquarter, Director's Conference Room,
1120 N Street, Sacramento

Attendees: TBPOC Members: Will Kempton, Steve Heminger, and John Barna
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Barbara Ando (LHS), Ali Banani, Scott Buckley (JV), Michele DiFrancia, Al Ely (JV), Dennis Jang (JV) Beatriz Lacson, Rick Land, Peter Lee, Brian Maroney, Bart Ney, Bob Nichol (JV), Dina Noel, Mo Pazooki, Tony Peterson (JV), Alvaro Piedrahita (JV), Tim Rellafor, Bijan Sartipi, Pete Siegenthaler, Ken Terpstra, Chris Traina, Patrick Treacy, and Jason Weinstein

LHS: Lawrence Hall of Science

JV: TY Lin / Moffatt & Nichols Joint Venture

Convened: 1:35 PM

Items		Action
1.	CHAIR'S REPORT The Chair apologized for the change in meeting venue and time that was prompted by a conflicting State fiscal crisis meeting, and then gave some pertinent highlights of that meeting: <ul style="list-style-type: none">• There is a proposal to accelerate the bond appropriation for the transit program by \$350M, for a total of \$1.1B by the end of the calendar year. This will be accompanied by spending controls and restrictions.• For the most part, Proposition 42 funds have not been touched, although \$200M of the Public Transit Account will be accessed.• A letter from the Governor stating the dire situation of the State budget (\$11B in the red for FY '08/'09) is imminent.	
2.	LAWRENCE HALL OF SCIENCE a. Educational Program Partnership	

(continued)

Items	Action
<p>2) Green-Tagging Procedure/Contract Change Order (CCO)</p> <ul style="list-style-type: none"> The Department presented, for TBPOC approval, CCO 77, in the amount of \$8,646,633 to cover the green-tagging procedure for fabricated assemblies over a 12-month period. It was noted that green-tagging is currently being implemented as authorized by the Department onsite. <ul style="list-style-type: none"> The process is a result of the Contractor's effort to manage quality control (QC) and provides a benefit to the quality assurance (QA) process, as well. 	<ul style="list-style-type: none"> The TBPOC APPROVED CCO 77 with the following modifications/conditions: <ol style="list-style-type: none"> A limited \$4 million is to cover estimated costs for the six-month period through February 2009. The PMT to discuss and work toward contractual resolution of the major fabrication constraints and initiate partnering sessions with the TBPOC and Contractor as soon as possible. Staff to work within the framework of a realistic and aggressive schedule, i.e., the Opportunity Schedule. Achieve a fabrication target of 150 deck panels by the end of November 2008. The deck panels should correlate with the work that is currently underway in the OBG work bays. Develop a pathway-to-success plan for OBG 1 and 2 for submittal to the TBPOC at the December meeting.
<p>3) Mechanical Electrical Plumbing (MEP) Update</p>	<ul style="list-style-type: none"> The TBPOC APPROVED the MEP Implementation Proposal at a cost not to exceed \$34,200,000.
<p>4) TY Lin Insurance Update</p> <ul style="list-style-type: none"> After introductions, the principals of TY Lin and Moffat & Nichol, the companies comprising the design joint venture (JV), gave an overview of 	

(continued)

Items	Action
<p>the Project Insurance Continuation Program covering: the current professional liability policy, the JV's concerns, the need for project-specific insurance, rationale for the coverage, resolution, and the cost for the continuation policy.</p> <ul style="list-style-type: none">• In response to TBPOC questions, the JV offered the following:<ul style="list-style-type: none">○ Putting together a continuation program is a time-consuming process. Purchasing the policy prior to the due date freezes the premium which is likely to be higher if purchased later. It is currently a volatile market with a lot of unknowns, and missing this current deadline does not guarantee availability or ease of purchase.○ A \$50 million policy allows the JV to fulfill its cost obligations with their subcontractors.○ The 70-30 split in cost as opposed to the original 80-20 enables the JV to cover the greater number of subs that are expected to be covered by the policy.○ Other insurers were considered, but the proposed insurer (Swiss) was the least expensive with triggers. Comparatively, the previous insurer's (Lexington) premium was double.• The TBPOC thanked and excused the JV team, noting that a decision would be forthcoming after due deliberation, and discussed the issue further.<ul style="list-style-type: none">○ The TBPOC felt that a counter	<ul style="list-style-type: none">• The TBPOC deferred

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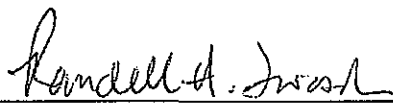
Items	Action
<p>proposal might be appropriate; that there must be some way to assess what amount of coverage is suitable (\$15M or \$50M, or in between); and, revisit the original 80-20 split, recognizing the JV's liability concerns.</p> <ul style="list-style-type: none"> The Department reported that ZPMC is scheduled to meet with the Mayor of San Francisco next week. <p>b. Yerba Buena Island Detour (YBID)</p> <p>1) Update</p> <ul style="list-style-type: none"> The Department reported that activity on the contract is going well. A concrete pour is scheduled this weekend for W2. <p>2) Contract Change Orders (CCO's)</p> <ul style="list-style-type: none"> The Department presented for TBPOC approval the following CCO's: <ul style="list-style-type: none"> CCO 112, S3, in the amount of \$3 million, for the procurement of raw steel for the East Tie-In. CCO 129, in the amount of \$14,712,500, for the erection of the steel skid bent and beam of the East Tie-In structure. <ul style="list-style-type: none"> ➤ It was suggested that staff give this one last look but leave the amount as is. CCO 149, in the amount of \$1,600,000, for the furnishing of the lead core and pot bearings for the East Tie-In structure. An urgent CCO to accelerate the 	<p>approval of this item.</p> <ul style="list-style-type: none"> Staff to communicate the TBPOC's concerns to the JV and provide the TBPOC options on the levels of insurance, premium, split of cost, and liability coverage. <ul style="list-style-type: none"> The TBPOC (in the absence of the Chair, who was called out of the meeting) APPROVED CCO 112, S3 (\$3,000,000), CCO 129 (\$14,712,500) and CCO 149 (1,600,000), as presented. Staff to resolve the Labor Day date for the East Tie-In Roll-Out/Roll-In with CCM in January '09. <ul style="list-style-type: none"> The TBPOC APPROVED the

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MEETING MINUTES

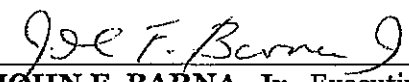
November 6, 2008, 10:00 AM – 1:00 PM
Caltrans Headquarter, Director's Conference Room,
1120 N Street, Sacramento

APPROVED BY:



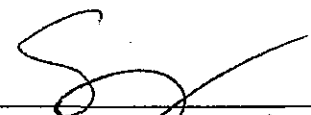
WILL KEMPTON, Director
California Department of Transportation

12.23.08
Date



JOHN F. BARN, Jr., Executive Director
California Transportation Commission

12.23.08
Date



STEVE HEMINGER, Executive Director
Bay Area Toll Authority

12/23/08
Date



Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** December 16, 2008

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 4a

Item- Program Issues
TY Lin Insurance Update

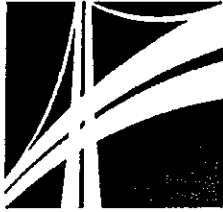
Recommendation:
For Information Only

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
A verbal update on the TY Lin/Moffat & Nichols Joint Venture insurance item will be provided at the meeting.

Attachment(s):
N/A



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

GALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

December 23, 2008, 10:00 AM – 1:00 PM
Mission Bay Office, Conference Room 1906,
325 Burma Road, Oakland

Attendees: TBPOC Members: Steve Heminger, John Barna, and Randy Iwasaki (for Will Kempton)
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Michele DiFrancia, Mike Forner, Beatriz Lacson, Peter Lee, Brian Maroney, Dan McElhinney, Bart Ney, Paul Pendergast (Pendergast & Associates), Derek Pool, Pete Siegenthaler, Mark Shindler, Ken Terpstra, and Jason Weinstein

Convened: 10:09 AM

Items	Action
<p>1. CHAIR'S REPORT</p> <p>Steve Heminger presided over the meeting in the absence of Will Kempton, the Chair, and referred to the previous week's BATA Commission meeting during which the seismic retrofit of the Dumbarton and Antioch Bridges was discussed.</p> <p>Discussion/comments included:</p> <ul style="list-style-type: none">• Rick Land did a good job presenting the technical issues relating to the bridges at the Commission meeting.• The inclusion of the two bridges in the TBSRP will require a change in State law and possibly new legislation for additional funding.• John Barna cautioned about ensuring that TBSRP contingency funding is made available for the future retrofit of these two bridges, as there is a direct correlation between the decisions the TBPOC makes regarding contingency and the ability to continue with these projects.• Tony Anziano gave a brief update and indicated that the team will run	

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Items	Action
<p>Project.</p> <ul style="list-style-type: none"> • The annual update reflects information similar to that in the TBSRP 3rd quarter report, but with a more detailed cash flow for program expenditures consistent with BATA's current Plan of Finance. • Will Kempton, the Chair, has sent a written request to the new FHWA Administrator and there is a realistic chance that the FHWA will accept the Program's quarterly reports as fulfilling their reporting requirements in the future. 	
<p>4. PROGRAM ISSUES</p> <p>a. TY Lin Insurance Update</p> <ul style="list-style-type: none"> • Tony Anziano reported that TY Lin recently purchased a \$25M policy for \$4M. <ul style="list-style-type: none"> ◦ It is assumed that the TBPOC will be asked to contribute toward this expense. ◦ It would be in the Program's best interest to participate in the Joint Venture's insurance cost, but the exact amount is still to be determined. <p>b. Education Program Partnership Update</p> <ul style="list-style-type: none"> • Bart Ney, on behalf of the Educational Outreach Subcommittee, provided handouts and gave a presentation on the 2009 SFOBB Educational Outreach Pilot Program. <ul style="list-style-type: none"> ◦ The Program is part of the Department's overall effort to encourage student interest and participation in engineering programs. It includes: <ul style="list-style-type: none"> ➢ classroom presentations, ➢ a multi-tiered program with Lawrence Hall of Science, ➢ supporting Caltrans Summer 	<ul style="list-style-type: none"> • The PMT to accomplish the following and report back to the TBPOC in February: <ul style="list-style-type: none"> ◦ obtain in writing from TY Lin on how they want to partner with the Program going forward; ◦ look into a possible insurance linkage with SAS/ABF; and, ◦ develop a recommended insurance proposal for TBPOC consideration.

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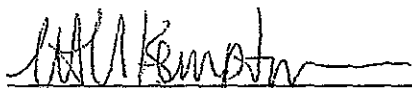
Items	Action
OTD1, etc.? o What is the top metric to measure success by? o The TBPOC is looking to the PMT to resolve issues and apprise the TBPOC accordingly.	

Adjourned: 1:15 PM

MEETING MINUTES


December 23, 2008, 10:00 AM – 1:00 PM
Mission Bay Office, Conference Room 1906,
325 Burma Road, Oakland

APPROVED BY:

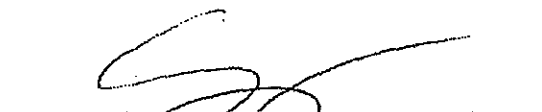


WILL KEMPTON, Director
California Department of Transportation

1/20/09
Date


JOHN F. BARNA, Jr., Executive Director
California Transportation Commission

1/20/09
Date


STEVE HEMINGER, Executive Director
Bay Area Toll Authority

1/20/09
Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 3a1
Consent Calendar
Item- TBPOC Meeting Minutes
February 03, 2011 Meeting Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the February 03, 2011 Meeting Minutes.

Attachment(s):
February 03, 2011 Meeting Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

MEETING MINUTES

February 3, 2011, 10:00am – 1:00pm

T. Y. Lin Office, Two Harrison St., Suite 500, San Francisco, CA

TBPOC – PMT pre-briefing, 10:00am – 11:00am

TBPOC meeting, 11:00am – 1:00pm

Attendees: TBPOC Members: Steve Heminger, Cindy McKim, and Andre Boutros (for Bimla Rhinehart)
PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller
Participants: Ade Akinsanya, Roland Au-Yeung, Ken Brown, Michele DiFrancia, Mike Forner, Ted Hall, Steven Hulsebus, Beatriz Lacson, Rick Land, Brian Maroney, Bart Ney, Rod Oto, Mo Pazooki, Bijan Sartipi, Saeed Shahmirzai, Peter Siegenthaler, and Jon Tapping

Convened: 11:13 AM

Items		Action
1. CHAIR'S REPORT		
<ul style="list-style-type: none">S. Heminger, the Chair, welcomed back A. Boutros, CTC Chief Deputy Director, who will be attending future TBPOC meetings while Vice Chair B. Rhinehart is on medical leave.		
2. TBPOC/ABF/ TYLMN Discussion		
<ul style="list-style-type: none">a. Self-Anchored Suspension (SAS) Superstructure Mitigation and Acceleration Update<ul style="list-style-type: none">T. Anziano gave a brief project update.Fabrication work in China remains on the critical path. ZPMC is working towards achieving the July 2011 shipment of Lifts 13 and 14.Shipment of segment 11 and final tower lifts is scheduled to arrive mid-February. The tower should be close to its full height by early March.The Chair indicated that he will be		

(continued)

Items	Action
making a trip to China next weekend with M. Flowers (ABF's new CEO) to check on progress, and will report back to the TBPOC upon return.	
<p>3. CONSENT CALENDAR</p> <ul style="list-style-type: none"> a. TBPOC Meeting Minutes <ul style="list-style-type: none"> 1) December 9, 2010 Meeting Minutes b. Final Project Progress and Financial Update December 2010 c. Contract Change Orders (CCOS): <ul style="list-style-type: none"> 1) Yerba Buena Island Detour CCO 119-S4 (Storm Water Pollution Prevention Plan), \$500,000 2) SAS CCO 167 (LED Light Fixture Procurement), \$1,555,614 	<ul style="list-style-type: none"> • The TBPOC APPROVED the Consent Calendar, as presented.
<p>4. PROGRESS REPORTS</p> <ul style="list-style-type: none"> a. TBSRP 4th Quarter 2010 Risk Management Update <ul style="list-style-type: none"> ○ J. Tapping gave a "Risk Management Briefing 4th Qtr 2010" presentation covering Adequacy of Reserves and Trend, Changes in RMC and Total Contingency from Q3, and Look Ahead to Q1 2011, including OTD Detour Estimate/Risk Management Post Q4 2010. Tornado diagrams depicted the Top Corridor Schedule Risks and Top Cost Risks. <ul style="list-style-type: none"> ➤ It was a good quarter that realized reduced risk and an increase in reserves. ➤ The next quarter report will include YBITS #1 acceleration and bridge demolition. ○ Copies of the approved Q4 2010 TBSRP Risk Management Report were distributed to the TBPOC and PMT. b. Draft 2010 Fourth Quarter Project Progress and Financial Update <ul style="list-style-type: none"> • P. Lee distributed a Draft Version 	<ul style="list-style-type: none"> • For the next risk management presentation, J. Tapping to show the probability of bridge opening in 2013 and the probability cost associated with that date. • The TBPOC APPROVED the

(continued)

Items	Action
<p>Proposed Final and requested TBPOC approval for the report, which is scheduled for release by February 14.</p> <p>c. FHWA 2010 Annual Update</p> <ul style="list-style-type: none"> • T. Anziano presented, for TBPOC approval, the “2010 Annual Update to the Financial Plan of the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project” for submittal to the Federal Highway Administration (FHWA). ○ The update is consistent with the information contained in the project’s 2010 3rd quarter report. 	<p>2010 Fourth Quarter Project Progress and Financial Update with revisions, as discussed.</p> <ul style="list-style-type: none"> • The TBPOC APPROVED the FHWA “2010 Annual Update to the Financial Plan of the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project”, as presented.
<p>5. SAN FRANCISCO-OAKLAND BAY BRIDGE (SFOBB) UPDATES</p> <p>a. Yerba Buena Island Transition Structures (YBITS) No. 1</p> <p>1) Update</p> <ul style="list-style-type: none"> • T. Anziano reported that work on the YBITS No. 1 job is going well in general. A contractor update and discussion on acceleration will be provided at the TBPOC April meeting. <p>b. Oakland Touchdown (OTD) No. 2</p> <p>1) Temporary Detour Scope and Budget</p> <ul style="list-style-type: none"> • B. Maroney gave a progress summary on the Oakland Detour work items, including utility relocation, right-of-way, Burma Road extension, permits, environmental re-evaluation documentation and eastbound/westbound design. ○ A slide presentation showed various phases of the Oakland Detour for SFOBB Acceleration and visuals of Upper Deck Fast Demolition, Bicycle-Pedestrian Facility and Prefabricated Units. 	

(continued)

Items	Action
<ul style="list-style-type: none"> ○ A scope of work (including the temporary bicycle/pedestrian facility and supporting construction work) and budget (\$88M) for the Oakland Detour were presented for TBPOC approval. ○ Discussion included public concerns about the change, traffic impacts, lane closures, proposed temporary bike alignments, closer analysis of curves and speed limits. ○ T. Anziano indicated that Department operations staff will be meeting on a monthly basis (M. Forner is coordinating) to address the upcoming lane and bridge closures that are planned for the SFOBB, Dumbarton and San Mateo-Hayward bridges, in combination with other projects like Doyle Drive. <p>2) Communications Plan</p> <ul style="list-style-type: none"> • B. Ney summarized the proposed strategy, “Oakland Touchdown Detour Stakeholder and Media Outreach Action Plan”, that will be used to inform the public and other stakeholders about the upcoming work on the Detour. The phased plan included Critical Talking Points, Access & Transportation Alternatives, Elected Officials Outreach, Media Outreach, Public Outreach and Caltrans Internal Coordination. With no bridge closures anticipated, media/public outreach has been scaled back. The plan will be re-evaluated if bridge closure is determined. <p>c. Temporary Bicycle/ Pedestrian Access to Yerba Buena Island (YBI)</p> <ul style="list-style-type: none"> • S. Hulsebus presented exhibits comparing different bike path alternatives and the currently proposed construction in the area 	<ul style="list-style-type: none"> • The TBPOC APPROVED an initial expenditure in an amount not to exceed \$15M for the eastbound work. • The TBPOC APPROVED the Oakland Detour scope of work as presented and budget as reduced to \$83 million. • Staff to come back to the TBPOC with an operations update with the CHP. • Staff to explore running messaging on Clear Channel sign(s) as a communication tool. • The TBPOC APPROVED the “Oakland Touchdown Detour Stakeholder and Media Outreach Action Plan”, as presented, and authorized the PIO to start the phased campaign next week.

(continued)

Items	Action
<p>(without a public access path). Also presented was an exhibit showing how the City of San Francisco plans to modify the traffic circulation on YBI, including providing for public access. Animations from bicyclist and vehicle perspectives, as well as side by side animation with and without a bike path, were shown.</p> <ul style="list-style-type: none">○ Discussion included the following:<ul style="list-style-type: none">➤ The City has no plans to improve the local roads on YBI to accommodate bicyclists or pedestrians at the time of seismic safety opening.➤ For safety and geometric standards reasons, Caltrans Safety and Geometric Office Chiefs do not recommend the bicycle/pedestrian path to YBI.➤ The Department does not recommend proceeding with the temporary bicycle/pedestrian access from SAS to YBI.	<ul style="list-style-type: none">• The Department to communicate to the bicycle community the decision to not proceed with the bicycle/pedestrian access to YBI.
<p>6 DUMBARTON/ANTIOCH BRIDGE SEISMIC RETROFIT UPDATES</p> <p>a. Updates</p> <ul style="list-style-type: none">• M. Forner reported on the status of ongoing field work at the Antioch and Dumbarton Bridge Seismic Retrofit projects. There are no major issues for either project. <p>b. Antioch Bridge Retrofit CCO 6-S0 (Seismic Bearing Installation Sequencing and Restrainer Brackets)</p> <ul style="list-style-type: none">• M. Forner indicated that this is a follow-up to the CCO approved by the TBPOC on December 9, 2010 in an amount not to exceed \$3,700,000. The finalized CCO totals \$3,261,688 and provides for a 97-work day time extension resulting from changes related to the seismic bearing installation process	<ul style="list-style-type: none">• Although presented as an informational item, the TBPOC APPROVED the final CCO 6-S0 in the amount of \$3,261,688, as presented.

(continued)

Items	Action
and the addition of restrainer brackets.	
<p>7 OTHER BUSINESS</p> <p>a. San Mateo-Hayward Bridge Retrofit Rehabilitation Update</p> <ul style="list-style-type: none"> • M. Pazooki and P. Lee gave a presentation on the status of the retrofit repair work at the San Mateo-Hayward Bridge. ○ The interim fix (to the crack on the retrofit work, not the original bridge) - completed a few months ago - is being inspected and monitored weekly. ○ The Department reviewed five alternatives. The final repair strategy, Alternative #4 (two-slab replacement with precast pre-stressed panels in both directions), will be presented to the Seismic Peer Review Panel in February 2011. ○ The project cost is estimated at \$10 million, including support. ○ A preliminary project schedule shows plans, specifications and estimate (PS&E) completed by May 2011; advertising in June 2011; bid opening in July 2011; and contract award by August 2011. Full bridge Labor Day weekend closure was recommended. <ul style="list-style-type: none"> ➤ The Chair noted that such a schedule would call for a presentation to BATA in April or May 2011 for rehab funding. <p><u>Miscellaneous</u></p> <ul style="list-style-type: none"> • The March 3 TBPOC meeting is cancelled. The next TBPOC meeting is scheduled for April 7, 2011, in Oakland, with a possible teleconference before then. • The TBPOC proceeded to the West Approach Dog Park groundbreaking 	<ul style="list-style-type: none"> • Staff to include in future cost summaries the toll revenue lost during bridge closures.

(continued)

Items	Action
event at the Beale Street Anchorage.	

Adjourned: 1:25 PM

TBPOC MEETING MINUTES
February 3, 2011, 10:00am – 1:00pm

APPROVED BY:

STEVE HEMINGER, TBPOC Chair
Executive Director, Bay Area Toll Authority

Date

BIMLA G. RHINEHART, TBPOC Vice-Chair
Executive Director, California Transportation Commission

Date

CINDY McKIM
Director, California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 3a2
Consent Calendar
Item- TBPOC Meeting Minutes
February 24, 2011 Conference Call Minutes

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
The Program Management Team has reviewed and requests TBPOC approval of the February 24, 2011 Conference Call Minutes.

Attachment(s):
February 24, 2011 Conference Call Minutes



TOLL BRIDGE PROGRAM OVERSIGHT COMMITTEE

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

CONFERENCE CALL MINUTES

February 24, 2011, 4:00 PM – 5:00 PM

Attendees: TBPOC Members: Steve Heminger, Andre Boutros (for Bimla Rhinehart) and Cindy McKim

PMT Members: Tony Anziano, Andrew Fremier, and Stephen Maller

Participants: Karin Betts, Michele DiFrancia, Mike Forner, Beatriz Lacson, Rick Land, Peter Lee, Bart Ney, Dina Noel, Bijan Sartipi, Pete Siegenthaler, Jon Tapping, Ken Terpstra, Deanna Vilchek, and Jason Weinstein

Convened: 4:08 PM

Items		Action
1. CONTRACT CHANGE ORDERS (CCOs)		
a. Yerba Buena Island Transition Structure (YBITS) #1 CCO No. 47-S1 (Frame 1 Falsework Enhancements)	<ul style="list-style-type: none">D. Noel presented, for TBPOC approval, CCO. No. 47-S1 in an amount not to exceed \$2,500,000 to cover enhancements to the Frame 1 falsework and strengthen the temporary foundation on the severe slope.	<ul style="list-style-type: none">The TBPOC APPROVED YBITS #1 CCO No. 47-S1 in an amount not to exceed \$2,500,000, as presented.
b. Yerba Buena Island Transition Structure (YBITS) #1 CCO No. 72-S0 (Frame Pre-Stressing Milestone)	<ul style="list-style-type: none">D. Noel presented, for TBPOC approval, CCO No. 72-S0 in the amount of \$18,181,065 (\$12,181,065 lump sum with \$6,000,000 in maximum incentives) to cover additional labor, materials and equipment needed to complete the pre-stressing of all four frames of the YBITS structure, and establish a milestone consistent with the SAS seismic safety opening (SSO) schedule.	
o The Chair suggested, and the TBPOC discussed, adding \$1.5 million to the		<ul style="list-style-type: none">The TBPOC APPROVED YBITS #1 CCO No. 72-S0 in the

(continued)

Items	Action
<p>\$6 million incentive to buy another month of YBITS #1 contract acceleration to August 3, 2012 from September 2, 2012, for a total CCO amount of \$19,681,065 (\$12,181,065 lump sum with \$7,500,000 in maximum incentives). It was agreed that getting as many activities off the critical path as possible (which this revised CCO would achieve) would mitigate delays and clear the way for SSO.</p> <p>c. Yerba Buena Island Detour CCO No. 260 (Adjustment of Time-Related Overhead [TRO])</p> <ul style="list-style-type: none"> D. Noel presented, for TBPOC approval, CCO No. 260 in the amount of \$5,801,300 to cover a contract-required adjustment of TRO costs for contract time extended (1,632 compensable working days) beyond the original contract duration (475 working days). 	<p>revised total amount of \$19,681,065, (\$12,181,065 lump sum with \$7,500,000 in maximum incentives).</p> <ul style="list-style-type: none"> Staff to provide the TBPOC a revised schedule showing in detail the impact of the \$1.5 million incentive increase. The TBPOC APPROVED YBI Detour CCO No. 260 in the amount of \$5,801,300, as presented.
<p>2. BUDGET UPDATES FOR OAKLAND DETOUR AND YBITS NO. 1</p> <ul style="list-style-type: none"> P. Lee presented, for TBPOC approval, budget changes for the Oakland Detour and YBITS No. 1 contracts in the amounts of \$83.0 million and \$32.2 million, respectively, to cover acceleration and risk mitigation proposals for both structures (e.g., items 1a and 1b above). <ul style="list-style-type: none"> This will allow for BATA fund allocation processing in early March 2011 and having funds available later that month. The funds will come from program contingency. Budget changes are required to allocate program contingency to the contract budgets. The forecasts for these risk mitigation proposals were included 	<ul style="list-style-type: none"> The TBPOC APPROVED budget changes for the Oakland Detour and YBITS No. 1 contracts in the amounts of \$83.0 million and \$32.2 million, respectively, as presented.

(continued)

Items	Action
<p>in the 2010 Fourth Quarter Project Progress and Financial Update. The budget changes will be reflected in the 2011 First Quarter Project Progress and Financial Update.</p>	
<p>3. DRAFT PROJECT PROGRESS AND FINANCIAL UPDATE FEBRUARY 2011</p> <ul style="list-style-type: none"> • P. Lee requested TBPOC approval for the draft February 2011 monthly report, which does not yet include final expenditure information, or delegation of report approval to the PMT. 	<ul style="list-style-type: none"> • The TBPOC APPROVED the Project Progress and Financial Update February 2011, pending the expenditure figures.
<p>4. SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE MITIGATION AND ACCELERATION UPDATE</p> <p>a. China Closeout Event</p> <ul style="list-style-type: none"> • B. Ney presented, for TBPOC information, Options A and B of a proposed program of activities for the China closeout (to coincide with the last steel shipment in July 2011), and requested TBPOC direction on how to proceed. ○ Discussion items included program elements, schedule of activities, venues, commemorative items, relevant State prohibitions, conservative cost estimates, potential contributors and next steps. <ul style="list-style-type: none"> ➤ T. Anziano noted that this is much more than a ceremonial closeout. It is added motivation for ZPMC to meet the July 2011 milestone. <p>b. China Visit Report</p> <ul style="list-style-type: none"> • S. Heminger, the Chair, reported on his recent trip to China with the PMT. ○ Lifts 13 and 14 fabrication is moving rapidly along. Mr. Kang is 	<ul style="list-style-type: none"> • The TBPOC directed staff to: (1) pursue Option B, (2) be mindful of public relations and legal ramifications, and (3) shop for cost-sharing contributors.

(continued)

Items		Action
unambiguous about ZPMC meeting the July 2011 shipment.		
5. Other Business <ul style="list-style-type: none">• The next TBPOC meeting is scheduled for April 7 at the Mission Bay Office in Oakland.<ul style="list-style-type: none">○ The Chair suggested it would be timely for the TBPOC to visit the project site again.	<ul style="list-style-type: none">• Staff to arrange a TBPOC project site visit after the April 7 meeting.	

Adjourned: 4:37 PM

CONFERENCE CALL MINUTES
February 24, 2011, 4:00 PM – 5:00 PM

APPROVED BY:

STEVE HEMINGER, Executive Director
Bay Area Toll Authority

Date

BIMLA G. RHINEHART, Executive Director
California Transportation Commission

Date

Cindy McKim, Director
California Department of Transportation

Date

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 3b1
Item- Consent Calendar
Contract Change Orders (CCOs)
Yerba Buena Island Transition Structure 1 CCO No. 47-S1 – Frame 1
Falsework Enhancements

Recommendation:
APPROVAL

Cost:
CCO 47-S1: \$2,434,980.00

Schedule Impacts:
N/A

Discussion:

CCO 47-S1 in the amount \$2,434,980 will provide compensation for additional costs associated with Department-ordered design enhancements to the Frame 1 falsework. The Frame 1 structure is comprised of 2 concrete box girders, each approximately 140 meters long and 26 meters wide, which will be constructed along a steep hill approximately 40 meters in height. The slope of this hill exceeds 1 to 1 in many locations and is comprised of loose sand.

The falsework for Frame 1 includes the construction of a temporary trestle which will support both the upper falsework and heavy cranes required to access the work area. As requested by the YBI Coordination Engineer, the Department has ordered design enhancements to the trestle and falsework under Change Order No. 47-S0. These enhancements will mitigate Department risk associated with constructing the falsework under the severe slope and geotechnical conditions present. A failure of the falsework would have a significant impact on the completion of the project and in turn potentially delay the opening of the new east span of the SFOBB.

Memorandum

Enhancements include approximately 50 battered piles of up to 35 meters in length, increased pipe pile embedment and approximately 200 meters of lateral bracing being incorporated into the structure.

This change order was approved by the TBPOC on February 24, 2011 at a cost not to exceed \$2,500,000. The final change order cost falls within the approved amount and is being presented for final approval.

Risk Management:

In the 4th Quarter 2010, the Pending CCO Log had a cost of \$950,000 set aside to pay for CCO #47: Falsework enhancements to frame 1. In addition, the Risk Register had a CCO Risk (#1005), that the amount set aside in the Pending CCO Log would be exceeded by \$1 million- \$2 million. Thus the \$2,434,980 CCO cost was within the total \$1.95 to \$2.95 million cost identified to cover this issue in the approved 4th Quarter 2010 Risk Management Report. Implementing this CCO will provide the benefits of the risk mitigation listed above.

Attachment(s):

1. CCO: 47-S1
2. CCO Memo: 47-S1

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 47	Suppl. No. 1	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Adjustment of Compensation at Lump Sum:

Compensate the Contractor for all additional costs in the construction and design of the Frame 1 falsework for the Westbound and Eastbound Structures (Br. No. 34-0006 L) due to the enhanced lateral support and pile embedment incorporated into the approved design as provided for under the original Change Order No. 47. Compensation includes but is not limited to all costs associated with furnishing and installing the battered A-frame piles, furnishing and installing additional lengths of piles for extended embedment depth and furnishing and installing additional bracing.

For these costs, the Contractor shall be compensation an agreed lump sum \$2,434,980.00. This lump sum constitutes full and final compensation for all additional costs incurred, including all markups, for all enhancements incorporated into the Frame 1 falsework.

This change order provides full compensation for all costs deferred under the original Change Order No. 47.

Cost of Adjustment of Compensation at Lump Sum\$2,434,980.00

A determination of the delay in the completion of the Contract due to this change order and the original Change Order No. 47 has been made in accordance with the provisions of Change Order No. 72. There shall be no time extension as a result of these change orders.

Estimated Cost: Increase ☒ Decrease ☐ **\$2,434,980.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by		
Signature	Resident Engineer Rajesh Oberoi, Senior R.E.	Date
Approval Recommended by		
Signature	Principal T.E. Mike Forner	Date
Engineer Approval by		
Signature	Principal T.E. Mike Forner	Date

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by		
Signature	(Print name and title)	Date

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 12/9/2010 Page 1 of 2

TO: Deanna Vilcheck, ACM /			FILE: E.A. 04 - 0120S4	
FROM: Rajesh Oberoi, Senior R.E.			CO-RTE-PM SF-80-12.7/13.2	
			FED. NO. NO FED AID	
CCO#: 47	SUPPLEMENT#: 1	Category Code: CHTX	CONTINGENCY BALANCE (incl. this change) \$19,592,387.00	
COST: \$2,434,980.00		INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>	HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00		IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
CCO DESCRIPTION: Temporary Trestle Construction			PROJECT DESCRIPTION: YBITS-1 (Yerba Buena Island Transition Structures)	
Original Contract Time: 1390 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 0 Day(s)	Percentage Time Adjusted: (including this change) 0 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 7

THIS CHANGE ORDER PROVIDES FOR:

Compensation to the contractor for additional costs associated with enhancements to the Frame 1 falsework.

This project, the Yerba Buena Island Transition Structure (YBITS), provides for the construction of two bridges which will connect eastbound and westbound traffic on the new east span of the San Francisco Oakland Bay Bridge (SFOBB) to the existing Yerba Buena Island (YBI) tunnel. The structures are comprised of concrete box girder bridges each approximately 40 meters high and 450 meters in length.

Frame 1 of both the westbound and eastbound structures provide for the construction of a 2 concrete box girders, each approximately 140 meters long and 26 meters wide, which will be constructed along a steep hill approximately 40 meters in height. The slope of this hill exceeds 1 to 1 in many locations and is comprised of loose sand. The contractor has submitted a falsework design for the westbound frame which incorporates a temporary work trestle within the falsework to provide access along the slope. The submitted falsework foundation design consists of over 200 pipe piles to support the trestle and falsework.

Based on a request from Mike Whiteside the YBI Coordination Engineer, the original Change Order No. 47 provided for enhancements to the design of the Frame 1 falsework. The increased design standard will mitigate Department risk associated with constructing the falsework under the severe slope and geotechnical conditions present. A failure of the falsework would have a severe impact the completion of the project and in turn potentially delay the seismic safety opening of the new east span of the SFOBB.

The design of the Frame 1 falsework has now been approved with the design enhancements incorporated. The major costs associated with the design enhancements include furnishing and installing approximately 50 battered pipe piles that are 550-millimeters in diameter and up to 35 meters in length, increased pipe pile embedment and approximately 200 meters of lateral support angel bracing being incorporated into the structure. Labor inefficiencies on the as-planned work resulting from this added work will also be compensated.

Compensation shall be paid as an adjustment of compensation at an agreed lump sum \$2,434,980.00 which shall be funded from the contract's contingency funds. A cost analysis is on file.

This change order was approved by the TBPOC on February 24, 2011 for a cost not to exceed \$2,500,000.

Authorization to proceed with this work was issued by Headquarters Construction on March 1, 2011 at a cost not to exceed \$2,500,000.

No adjustment of contract time shall be granted as specified under Change Order No. 72 which acted to mitigate any delay associated with this change.

Maintenance concurrence is not required as this change affects a temporary structure and doesn't affect any permanent roadway features.

CONTRACT CHANGE ORDER MEMORANDUM

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer: Rajesh Oberoi	Date		THIS REQUEST		TOTAL TO DATE
Bridge Engineer: Mehran Ardakanian	Date		ITEMS	\$0.00	\$0.00
Project Engineer:	Date		FORCE ACCOUNT	\$0.00	\$0.00
Project Manager:	Date		AGREED PRICE	\$0.00	\$0.00
FHWA Rep.:	Date		ADJUSTMENT	\$2,434,980.00	\$2,434,980.00
Environmental:	Date		TOTAL	\$2,434,980.00	\$2,434,980.00
Other (specify):	Date		FEDERAL PARTICIPATION		
Other (specify):	Date		<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:	Date		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By: Larry Salhaney	Date		<input checked="" type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:	Date		FEDERAL FUNDING SOURCE PERCENT _____ _____ _____		

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 3b2
Consent Calendar
Contract Change Orders (CCOs)
Item- Supplemental Request for SAS CCO#24-S0 and SAS CCO#24-S1
(Traveler Modifications)

Recommendation:

APPROVAL

Cost:	TBPOC- October 16, 2009	Final Negotiated Price	This Request
CCO24-S0	\$ 750,000 (approved)	\$1,532,557.11	\$ 782,557.11
CCO24-S1	\$2,500,000 (approved)	\$3,703,527.54	\$1,203,527.54
	\$3,250,000 (approved)	\$5,236,084.65	\$1,986,084.65

Schedule Impacts:

N/A

Discussion:

This supplemental request in the amount of \$1,986,084.65 will cover the final costs of contract change orders 24-S0 and 24-S1 for the SAS contract originally approved at the October 16, 2009 TBPOC meeting. The cost increase is due to additional design changes made to the traveler scaffolds and proof testing on a separate track prior to installation on the SAS bridge. This final amount also includes contingency costs.

Risk Management:

The SAS Risk Register is carrying two risks for the travelers: Risk #68 Cost variation on CCO 24 - Traveler Redesign, and Risk #37 Traveler System Redesign - Design Complexities. The first was a risk that the final cost of the change order would exceed the amount carried in the pending change order log on the order of \$1 million to \$3.5 million and the second two address the risk that an additional \$300 thousand to \$1.5 million would be required to address design changes required to make the traveler system work as intended.

Memorandum

The 4th quarter pending change order log was carrying \$4,032,557.11 for change order #24 and its supplements; so the final negotiated price of \$5,236,084.65 for this change is just below the total \$5.3 million to \$9 million carried for this change. Subsequent changes to the travelers required to complete fabrication, testing, installation will be addressed in supplements to this change order and covered with the remaining risk allocation

Attachment(s):

1. CCO #24-S0
2. CCO #24-S1
3. CCO #24-S0 and #24-S1 Memoranda

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 0 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract.

NOTE: This change order is not effective until approved by the Engineer.

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Modify traveler rails and hardware as shown on sheets three (3) through seventy (70) of this change order. This change includes, but is not limited to, the following:

- Change the traveler rail from an "S" shape beam to a built-up beam
- Modify the bikepath traveler rail connections
- Modify the crossbeam traveler rails
- Remove existing traveler rail, then furnish and install new traveler rail on the Skyway transition section.
- Advance procurement of elements of the traveler scaffold test frame as directed by the Engineer
- Conduct soil testing to determine soil bearing values for the traveler testing frame as directed by the Engineer
- Provide compensation for the escalated cost of the traveler scaffold suspension system components

The following revised contract plan and supplemental sheets detail all changes:

0663R2, 0951R3, 0952R3, 0956R3, 0956S1R1, 1009R2, 1010R2, 1011R3, 1012R2, 1013R3, 1014R2, 1015R2, 1016R2, 1017R2, 1018R3, 1019R2, 1020R2, 1021R2, 1022R2, 1023R2, 1024R2, 1025R2, 1026R2, 1027R3, 1028R3, 1029R3, 1030R2, 1031R2, 1032R2, 1033R2, 1034R2, 1035R3, 1036R3, 1037R3, 1037S1R1, 1037S2R1, 1037S3R1, 0137S4R1, 1037S5R1, 1037S6R1, 1037S7R1, 1037S8R1, 1037S9R1, 1120R3, 1121R3, 1122R4, 1122S1R1, 1122S2, 1122S3, 1123R3, 1124R3, 1125R4, 1125S1, 1126R3, 1127R3, 1128R4, 1129R3, 1130R4, 1131R3, 1132R3, 1133R4, 1133S1R3, 1153R3, 1154R3, 1155R3, 1156R2 and 1158R2 (of 1204).

This change order resolves Contractor Request for Information (RFI) Nos. 220R0, 630R0, 898R0/R1, 946R1, 1053R1, 1392R0, 1515R0, 1536R0, 1617R0, 1707R0, 1835R0, TVC-RFI-0146R0, TVC-RFC-0146R1, TVC-RFI-0146R2, TVC-RFI-0146R3, TVC-RFI-0239R0, TVC-RFI-0239R1, TVC-RFI-0242R0, TVC-RFI-0593R0, TVC-RFI-0593R2, and TVC-RFI-0656R0.

For the purpose of making partial payments pursuant to Section 5-1.25, "Payments" of the Special Provisions, components for the traveler scaffold suspension system that are furnished by Elect Air and are furnished to the traveler fabricator shall be considered materials furnished but not incorporated into the work.

Estimate of Decrease in Contract Item at Contract Price:**ITEM 1**

The change in the traveler support rail from an "S" beam to a built-up beam and other changes as shown on the attached plan sheets result in a change in weight of Contract Item #101. This is a decrease in contract item at contract unit price.

Item No. 101: TRAVELER SUPPORT RAIL
-69,668 KG (-17.48%) at \$7.00 / KG =

<\$487,676.00> (-17.48%)

The quantity shown herein for Item #101, TRAVELER SUPPORT RAIL, when combined with the quantities specified in the Engineer's Estimate, and as modified by any previous change orders, shall be the final quantity for which payment will be made.

Total Decrease in Contract Item at Contract Unit Price <\$487,676.00>

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 0 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

Adjustment of Compensation at Lump Sum Price:

ITEM 2

For the change in character of work for changing the rail from an "S" beam to a built-up beam, additional handling, installation, galvanization, brackets, bolts and other miscellaneous items, the Contractor agrees to accept a lump sum price of \$545,190.60. This sum constitutes full compensation, including all markups, for this change.

For revising the crossbeam traveler rail and support brackets after the initial approval of shop drawings, and to modify the support brackets at panel point 8.5, the Contractor agrees to accept a lump sum of \$505,000.00, per ABF letter ABF-CAL-LTR-001248, dated September 28, 2009. This sum includes compensation for, markups, detailing costs, fabrication, and salvage value of material not incorporated into the work relative to this change.

Adjustment of Compensation at Agreed Lump Sum Price \$1,050,190.60

Extra Work at Lump Sum Price:

ITEM 3

To furnish traveler support rail along the Skyway transition section, the Contractor agrees to accept a lump sum price of \$170,485.40. This sum constitutes full compensation, including all markups, for this change.

Cost of Extra Work at Agreed Lump Sum Price \$170,485.40

Adjustment of Compensation at Lump Sum Price:

ITEM 4.

The items identified above in this change order have been paid as part of CCO 108 resolution. Therefore, the amount due under this change order will be adjusted by the amount paid under CCO 108 to prevent a double payment. Total amount paid under CCO 108, and to be credited to this change, is \$733,000.00.

Adjustment of Compensation at Agreed Lump Sum Price..... <\$733,000.00>

Adjustment of Compensation at Lump Sum Price:

ITEM 5

To compensate the Contractor for escalated cost of the traveler scaffold suspension system components furnished by Elect Air, the Contractor agrees to accept a lump sum price of \$582,557.11 This sum constitutes full compensation, including all markups, for this change.

Adjustment of Compensation at Agreed Lump Sum Price..... \$582,557.11

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 0 Contract No. 04 - 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

Extra Work at Force Account:**ITEM 6**

Perform the following, but not limited to, as directed by the Engineer:

1. For changes identified on contract plan sheets 0951R3, 0952R3, 1013R3, 1122R4, 1122S2, 1122S3, 1125R4, 1125S1, 1128R4, 1130R4, 1133R4, and 1133S1R3 (of 1204) issued after the agreement of CCO 108.
2. Remove existing traveler support rail on the Skyway transition section and install built-up traveler support rail.
3. Adjust clearance and straightness of crossbeams traveler rails at PP14-28 and PP125-128 as required.
4. Furnish materials for the traveler-testing frame.
5. Conduct soil testing to determine soil-bearing values for the traveler-testing frame.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated Cost of Extra Work at Force Account..... \$950,000.00

CHANGE ORDER COST AND TIME SUMMARY

ITEM 1. Estimate of Decrease in Contract Item at Contract Price.....	<\$487,676.00>
ITEM 2. Adjustment of Compensation at Lump Sum Price.....	\$1,050,190.60
ITEM 3. Extra Work at Lump Sum Price.....	\$170,485.40
Sub-total (ITEM 1 thru 3), net value of this change up to 11-17-09.....	
ITEM 4. Amount paid under CCO 108 for this change order.....	<\$733,000.00>
ITEM 5. Adjustment of Compensation at Lump Sum Price	\$582,557.11
ITEM 6. Extra Work at Force Account.....	\$950,000.00

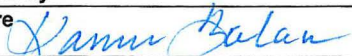
Total net pay for this change order..... \$1,532,557.11

Contract time is addressed in CCO 108 for all work identified in this change order. Therefore contract time will not be adjusted in this change order.


Estimated Cost: Increase ☒ Decrease ☐ \$1,532,557.11

By reason of this order the time of completion will be adjusted as follows: 0

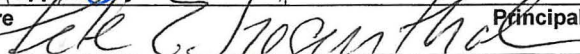
Submitted by

Signature 	Resident Engineer	Kannu Balan, Senior TE	Date 6-10-10
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Approval Recommended by

Signature 	Supervising Transportation Engineer	Gary Pursell, SupTE	Date 6/10/10
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Engineer Approval by

Signature 	Principal Transportation Engineer	Peter Siegenthaler, PrinTE	Date 7/12/10
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We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature 	(Print name and title)	Michael D. Flowers Project Director	Date 7-7-10
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CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. Unless otherwise stated, rates for rental of equipment cover only such time as percentage shown is the net accumulated increase or decrease from the original

DRAFT

CCO 024S1 - CCO v23 20110307.doc

and force account.)
ne. This last

This change includes, but is not limited to, the following:

- Modify the traveler motors and trolleys
- Modify the traveler brake system
- Modify the pneumatic system
- Revise the testing procedures of the travelers including construction of a testing frame.
- Revise paint and other protective coatings specifications for various traveler components

Adjustment of Compensation at Lump Sum Price:

Revise Special Provisions Section 10-1.63 "Traveler Scaffolds," as shown on sheets 3 through 18 of this Change order. Modify maintenance traveler components as shown on sheets 19 through 120 of this change order. Insert the following after the 7th paragraph of Special Provisions section 10-1.64 "Traveler Support Rails."

Teflon

Teflon (PTFE) for sliding bearings in the rail supports shall be commercial as follows:

PTFE shall be manufactured from pure virgin unfilled TFE resin conforming to ASTM D1457. PTFE shall be resistant to acids, alkalis and petroleum products; non-absorbing of water; stable from -360°F to +500°F; and non-flammable. It shall meet the following test requirements:

Physical Property	ASTM Test Method	Requirement (min.)
Ultimate tensile strength	D1457	2800 psi
Ultimate elongation	D1457	200%
Specific Gravity	D792	2.12

Adhesive

Adhesive used for bonding sheet PTFE shall be an epoxy material stable from -100°F to +250°F.

The Contractor shall supply the following items as spare parts. These shall be delivered to a location to be specified by the engineer.

- 100% extra quantity of nylon bearings for sliding rail connections for traveler rails crossing the Hinge A joint.
- 10% extra quantity of 6.4 and 9.5 mm thick teflon pads for sliding rail connections"

The following revised contract plan and supplemental sheets detail all changes:

1007R2, 1008R3, 1011R4, 1018R4, 1028R4, 1036R4, 1038R2, 1039R1, 1040R1, 1046R1, 1047R2, 1048R2, 1049R1, 1050R1, 1051R1, 1052R1, 1053R1, 1054R1, 1055R3, 1056R1, 1057R1, 1065R3, 1066R1, 1067R1, 1074R1, 1076R1, 1077R2, 1079R1, 1080R1, 1081R1, 1084R1, 1085R1, 1086R1, 1087R1, 1090R4, 1090S1, 1091R2, 1092R2, 1093R1, 1094R1, 1096R2, 1097R1, 1098R1, 1099R3, 1100R2, 1101R2, 1103R1, 1104R2, 1105R3, 1106R1, 1107R3, 1109R2, 1110R3, 1111R5, 1112R3, 1113R2, 1114R2, 1115R3, 1115S1, 1116R3, 1117R2, 1118R2, 1119R3, 1119S1, 1119S2, 1134R3, 1134S1R2, 1134S2, 1135R3, 1135S1R1, 1135S2, 1140R1, 1145R2, 1146R3, 1147R2, 1148R2, 1149R1, 1150R2, 1151R2, 1152R1, 1152S1R1, 1157R2, 1159R2, 1159S1R1, 1160R2, 1161R3, 1161S1, 1161S2, 1161S3, 1161S4R1, 1161S5, 1163S1, 1163S2, 1163S3, 1163S4, 1163S5, 1163S6, 1163S7, 1163S8, 1163S9, 1163S10 and 1163S11 (of 1204).

This change order includes resolutions for Contractor Request for Information (RFI) Nos. 226R1, 1050R0, 1066R0, 1112R0, 1112R1, 1598R0, 1599R0, 1713R0, 1763R0, 1918R0, 1944R0, 1946R0, 1950R0, 1953R0, 1955R0,

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

1968R0, 1969R0, 1970R0, 1971R0, 1972R0, 2117R0, 2123R0, 2126R0, 2127R0, 2140R0, 2151R0, 2155R0, 2164R0, and 2190R0.

The Contractor shall submit a schedule of values for erection of the traveler testing frame and the setup of the travelers on the testing frame for approval by the Engineer. When approved in writing by the Engineer, the schedule of values will be used to determine progress payments for the traveler testing frame erection and setup of the travelers for testing in the shop.

For this work, the Contractor will receive a lump sum price of \$2,703,527.54. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this Change.

Adjustment of Compensation at Lump Sum Price\$2,703,527.54

Extra Work at Force Account:

Extra work at force account shall be used to compensate the Contractor as follows or as directed by the Engineer:

1. Welding Quality Control inspection of the traveler testing frame at the fabrication facility.
2. Testing of each of the traveler trolley trains at the fabrication facility after set up and check for operability.
3. Testing of the SAS Eastbound and E2/E3 Eastbound travelers at the fabrication facility after set up and check for operability.
4. Any testing of travelers on the bridge that exceeds a) the cumulative total of 90 manhours for ABFJV or b) for the supplier's on-site technical representative, one trip per traveler or 10 days per traveler.
5. Adjustment of the traveler components from initially approved settings during testing.
6. Any land rental cost at Port of Long Beach that exceeds \$40,000.00.
7. Any shipping costs to the job site that exceeds \$110,000.00.
8. Packing, crating and offsite storage of the IR and Twiflex components.
9. Application of protective coatings to all wood components on the travelers.
10. Additional funds for CCO 24S0, Item No. 6 Extra Work At Force Account.

Labor, equipment and material authorized by the Engineer, as necessary, will be paid in accordance with the provisions of Section 4-1.03D, "Extra Work" of the Standard Specifications and Section 5-1.24, "Force Account Payment" of the Special Provisions.

Estimated cost of Extra Work at Force Account \$1,000,000.00

The Contractor agrees that this Change Order will not affect the Readiness for Seismic Safety Opening (SSO) per Contract Changed Order No. 160.

Estimated Cost: Increase ☒ Decrease ☐ **\$3,703,527.54**

By reason of this order the time of completion will be adjusted as follows:

Deferred

Submitted by

Signature	Resident Engineer		Date
	Kannu Balan, Senior TE		

Approval Recommended by

Signature	Supervising Bridge Engineer		Date
	William Casey, Sup. BE		

Engineer Approval by

Signature	Principal Transportation Engineer		Date
	Peter Siegenthaler, Prin. TE		

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)		Date
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CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

Special Provisions Changes**10-1.63 TRAVELER SCAFFOLDS****GENERAL**

This work shall consist of furnishing, fabricating, testing and installing five under-deck traveler scaffolds in accordance with the details shown on the plans and the provisions of Section 55, "Steel Structures," Section 57, "Timber Structures," of the Standard Specifications, and these special provisions.

Attention is directed to "Welding" of these special provisions regarding welding of traveler scaffolds. Unless otherwise specified, welding of traveler scaffolds shall be in conformance with the requirements in AWS D1.1. The Contractor shall fully detail the travelers and all their components in accordance with the details shown on the plans and shall be responsible for verifying all dimensions and identifying any conflicts and bring these to the attention of the Engineer for resolution.

The Contractor shall confirm all dimensions, clearances and fit of the travelers to the permanent structure. Any conflicts shall be brought to the attention of the Engineer for resolution.

For the pneumatic systems, the Contractor shall submit working drawings showing the final layout of the systems, generally following the schematics shown on the Contract Plans and respecting the operational and functional requirements as shown on the plans and as described herein.

This work shall include all final component design, where applicable, shop and field testing, and operator instruction for mechanical and pneumatic systems.

Each traveler shall be fully assembled in the shop before shipping to ensure proper fit of all parts and elements.

Unless otherwise noted, exposed steel shall be painted in accordance with the provisions of Section 59, "Painting," of the Standard Specification, and "Clean and Paint Structural Steel" of these Special Provisions, except that painting of the traveler scaffolds performed at the traveler fabrication facility may be performed by a paint applicator certified in conformance with the requirements in Qualification Procedure No. 1, "Standard Procedure For Evaluating Painting Contractors" (SSPC-QP 1). ~~Exposed moving parts of the drive machinery shall be painted OSHA safety red, orange, yellow or green conforming to the requirements of ANSI Z54.2.~~

Attention is directed to "Relations with United States Coast Guard" of these special provisions.

The Contractor shall demonstrate experience in the design and installation of pneumatic systems, and shall have completed a minimum of 3 successful bridge traveler or similar underhung crane projects within the last 5 years.

A qualified technical representative of the manufacturer(s) shall be present during installation and testing of the travelers.

The Contractor shall provide one experienced service technician for a minimum of 8 working days to instruct personnel appointed by the Engineer on how to properly operate and maintain the travelers.

Stainless steel capacity plates shall be furnished and installed indicating the permitted live loading using the wording noted on each individual traveler assembly drawing. Attachments shall be by means of corrosion-resistant fasteners. The plates shall be mounted where they are visible to the personnel on the traveler.

Each traveler shall be provided with four navigation lights meeting minimum Coast Guard navigation requirements for inland waterways for visibility and color. The navigation lights shall be watertight and be capable of being maintained from the traveler. The navigation lights shall be equipped with 60 meter long extension chords for attachment to 110 volt power to be supplied by others.

Any materials damaged during shipment or handling shall be repaired or replaced at the Contractor's expense.

The fourth paragraph in Section 55-2.02, "Structural Steel," and the fourth paragraph in Section 55-2.07, "Unidentified Stock Material," of the Standard Specifications shall not apply.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:**MATERIAL AND WORKMANSHIP**

Bolts, nuts and washers, except where specified to be stainless steel, shall be galvanized in accordance with the provisions in Section 75-1.05, "Galvanizing," of the Standard Specifications.

Bolts, nuts and washers shall conform to the United States Standard Measures version of ASTM Designation: A325 unless noted otherwise on the plans.

Bolted connections shall conform to requirements in "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts" (RCSC Specification) approved by the Research Council on Structural Connections of the Engineering Foundation.

Structural Steel

The specific requirements for grades of steel are shown on the plans.

Tubular or pipe connections

~~Dimensional details and workmanship for welded joints in tubular and pipe connections shall conform to the provisions in Part C, Structural Details; Part D, Special Provisions for Welding Tubular Joints; and Part E, Workmanship, in Section 10 of AWS D1.1.~~

Dimensional details and workmanship for welded joints in tubular and pipe connections shall conform to the provisions in Part A, "Common Requirements of Nontubular and Tubular Connections," and Part D, "Special Requirements for Tubular Connections," in Section 2 of AWS D1.1.

Decking Plywood

Plywood panels for decking shall conform to or exceed the requirements of U.S. Product Standard PS-1-9S for APA Structural 1 AB Marine Grade. Plywood shall be pressure treated. Plywood panels for decking shall be painted on all sides and edges with a commercial marine grade spar varnish. The varnish shall not contain linseed oil and shall be applied according to manufacturer's instructions. Fine silica sand shall be broadcast into the final coat of the upper surface of the decking at the rate of 1.5 kg per square meter of surface area.

Deck – Expanded Metal Grating

Where expanded metal grating is called on the plans, it shall be expanded metal structural grating of the weight size and style shown on the drawings.

The grating shall be trimmed at its edges with U edging or flat bar edging as shown on the drawings. The edging material is to be welded to the grating.

The grating assemblies are to be hot dip galvanized in accordance with the specifications and shall not be painted with finish paint.

The grating has been specified using the designations generally employed by Dramex Corporation and McNichols Company. Grating by other manufacturers of equal thickness and strength and slip resistance is acceptable.

Wooden Toeboards and Curbs

Wooden toeboards and curbs shall be pressure treated S4S Douglas Fir. ~~Toeboards and~~ shall be painted on all sides with a commercial marine grade spar varnish. The varnish shall not contain linseed oil and shall be applied according to manufacturer's instructions.

Pressure Treatment of Wood

Pressure treatment shall conform to AWPA Standard C1 to a retention of at least 1.95 kg/m3.

Hardware for wooden toeboards and curbs

Hardware shall consist of all fasteners, carriage bolts with attached washer used to attach decking to the steel structure, lag screws or bolts through the toeboards, blind rivets, oil impregnated bronze bars, stainless steel socket set screws, or any other hardware shown on the plans to attach the decking or toeboards to the traveler structure and shall conform to Section 75-1.02, "Miscellaneous Iron and Steel," of the Standard Specifications.

Rigging Hardware (Shackles etc.)

Rigging hardware shall be hot dip galvanized or zinc plated and shall meet the strength requirements shown on the specific plans.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

The travelers have been detailed using the dimensions for Crosby material. Part numbers are given. Substitutions of equal strength are permitted. The Traveler supplier shall re-detail any parts affected by such substitutions.

Nylon

Nylon elements are to be made from Nylon 101, unfilled, Type 66 nylon, having the following physical characteristics:

Tensile Strength:	79 MPa
Modulus of Elasticity (Tensile):	2900 MPa
Hardness - Rockwell M:	85 MPa

Substitution of Nylatron GS Nylon, Type 66, MoS2 filled will be accepted.

The Contractor shall supply additional nylon parts for spares.

Chains

Chains shall be hot dip galvanized and shall have the minimum tensile strengths shown on the plans.

Blind Rivets Fasteners

~~Blind rivets~~ Fasteners for connecting plywood deck to the traveler ~~shall be stainless steel, 4.8 mm diameter and~~ shall be installed at ~~305 mm maximum on center along edges of plywood sheets and at 610 mm on center on intermediate supports spacing called out on the contract plans~~ unless otherwise specified. ~~Blind rivets~~ Fasteners are not to be installed into any tubular sections.

Fasteners shall be stainless steel self-tapping screws as called out in the contract plans. The type of stainless steel is to be suitable for marine exposure. Fabricator shall propose the type of stainless steel.

Teflon

~~Teflon for sliding bearings in the rail supports shall be commercial.~~

Non-destructive testing of the welds

Complete joint penetration (CJP) welds on all suspension components including links, suspension arms and lift plates, shall be 100 percent magnetic particle inspected and 100 percent radiographically or ultrasonically inspected. Partial joint penetration (PJP) and fillet welds on all suspension components including links, suspension arms and lift plates, shall be 100 percent magnetic particle inspected. Other CJP welds shall be 10% radiographically or ultrasonically inspected. Other PJP and fillet welds shall be 10% magnetic particle inspected.

Categories of welds not 100% tested shall be sampled at the specified rate by inspecting 100% of one weld out of each 10 similar welds within the production lot for a 10% rate. If any rejectable indications are found, an additional weld shall be 100% inspected by the same method. If any rejectable indications are found in the additional weld, all welds in the lot shall be inspected 100%. If any rejectable indications are found in the remainder, the sampling rate shall be doubled. All rejected welds shall be repaired, or replaced, and retested 100% by the same method.

The fabricator shall submit detailed magnetic particles, ultrasonic, and radiographic test procedures to the Engineer for review, and shall not proceed with the testing until the Engineer has approved the procedures.

Other welds are to be non-destructively tested at the frequency shown on the plans or described in other parts of these special provisions, whichever is the greater.

The acceptance criteria for UT shall be per AWS D1.1, Table 6.2 for non-tubular or CJP welds on square tubular connections 6mm or greater in thickness and section 6.13.3.1. and Class R for all other CJP tubular welds.

The acceptance criteria for RT shall be per AWS D1.1, section 6.12.3.

For all welds requiring 100% NDT, undercut shall be no more than 0.25mm deep. Undercut shall be no more than 1mm deep for all other welds.

For all welds requiring 100% NDT, the welds shall have no piping porosity. The frequency for piping porosity for other welds shall be no more than one in 100mm of weld length and the maximum diameter shall not exceed 2.5mm. All other requirements of Table 6.1 apply.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:**Marine Grade Epoxy Finish**

Marine grade epoxy finish shall conform to the ~~requirements of these special provisions. Surfaces to be coated with marine grade epoxy shall be blast cleaned in accordance with the requirements in Section 59-2.03 "Blast Cleaning," of the Standard Specifications.~~ Manufacturer's recommended standard marine grade epoxy finish as approved by the Engineer and these Special Provisions.

~~Marine grade epoxy shall be applied to two coats. The dry film thickness of the each coat shall not be less than 100 microns minimum nor more than 150 microns maximum.~~

The final coat color shall match Federal Standard No. 595B, No. 13432, or other contrasting safety color proposed by the Contractor and subject to the approval of the Engineer.

~~The target minimum total dry film thickness shall be 200 microns for smooth surfaces without major surface discontinuities. The target minimum total dry film thickness shall be 300 microns for mating surfaces.~~

Marine grade epoxy finish for material supplied by Ingersoll Rand shall be Ingersoll Rand paint specification 382-31341, "P1" option or equal, subject to approval of the Engineer.

Electroless Plating – Linear Actuators

Load screws and projecting shafts of the linear actuators shall be electroplated with an amorphous nanocrystalline composite of nickel tungsten and boron.

The coating shall be applied to prepared substrate in accordance with manufacturer's recommendations. Care shall be taken to remove all contaminants from the substrate prior to plating.

The coating shall be deposited to a minimum thickness of 0.001 inch. (0.025 mm).

The coating shall be demonstrated to be unaffected by ASTM Salt Spray Test B117 for a minimum period of 200 hours.

ERECTING, TESTING, AND WEIGHING OF THE COMPLETED TRAVELER**Erection of the Travelers**

The Contractor shall be responsible for devising and executing an erection method for the travelers including the provision of all required calculations, the supply of any necessary temporary material, and the development of appropriate method statements.

Unless otherwise approved by the Engineer, the requirements of the erection method shall not increase the weight of the traveler.

Weighing of Traveler

The Contractor shall carry out a detailed weight take off for all the travelers and shall submit this to the Engineer for his review prior to starting any fabrication.

Each traveler scaffold shall be weighed prior to installation on the bridge, with the method of weighing subject to approval by the Engineer. The weights for each traveler shall be taken and recorded at each trolley support; the total weight will be the sum of those individual weights.

The anticipated weights of the travelers are shown on the individual traveler assembly drawings. Should the actual weight measured deviate from these values by 10% or more, the actual weights shall be submitted to the Engineer for his review and determination of what action, if any, is required.

Pre-test requirements

Before starting or operating systems, the Contractor shall flush and clean equipment and check for proper installation, lubrication and servicing.

General Testing Requirements

~~The Contractor shall test and start up mechanical systems upon installation of the travelers on the bridge as hereinafter specified. The Contractor shall follow the equipment manufacturer's break-in procedure before full load testing for all equipment. Final adjustments and balancing of the systems shall be performed so they will operate as specified. The~~

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

~~Contractor shall replace or revise any equipment, systems or work found deficient during tests. Particular care shall be used in lubricating bearings to avoid damage by overfilling with lubricant and blowing out seals. The Contractor shall repair, or replace with new equipment, any equipment damaged during shipment, after delivery, during installation and during testing. The Contractor shall perform tests after installing the hoses to insure the lines are airtight. The test shall be conducted for a period of one hour at the design pressure. Defective work shall be repaired at the Contractor's expense.~~

Shop Testing

One of the completed SAS travelers and one of the completed E2/E3 travelers, as identified on the contract plans, shall be tested in the shop under maximum design loading conditions in the presence of the Engineer as described below. The length and slope of the testing runway shall be as identified on the contract plans. The test runway need not incorporate curved rail. The bikepath traveler does not need to be shop tested.

Field Tests

~~The Engineer shall be notified at least 3 days in advance of starting these tests.~~

Upon completion of mechanical work and pre-test requirements, or at such time prior to completion as determined by the Engineer, the Contractor shall operate and test the travelers and their installed mechanical systems as described below. Travelers which will cross expansion joints in service shall cross at least one expansion joint in each direction during this test.

Each of the completed travelers shall be field tested on the bridge ~~as follows~~.

The Contractor shall furnish, install and remove all temporary apparatus necessary for performing the tests.

Traveler Testing Requirements (Shop and Field Testing)

- A. All traveler components, structural, mechanical and pneumatic ~~components~~ shall be completely installed and functional prior to commencement of these tests. All components shall be monitored during the testing to ~~assure~~ ensure that no excessive heating per the manufacturer's guidelines occurs, and that no binding occurs.
- B. ~~Tests-Testing~~ shall be conducted performed with the traveler fully loaded ~~per to~~ the maximum design live loading stated in the plans.
- C. All tests shall be conducted performed in both the upgrade and down grade directions.
- D. ~~For the The~~ SAS and E2/E3 travelers, ~~the traveler~~ shall be intentionally skewed up to the design value of 10% (5.7 ~~degrees-Degrees~~) in either both directions. As the ~~carriage scaffold~~ is skewed the anti-skew system shall be tested for response to minor and major skew conditions. As the scaffold is skewed, a careful check shall be made for structural or other interferences, and corrections made as ~~necessary required~~.
- E. The traveler speed shall be tested corresponding to design criteria set forth in this specification and the exhaust choke valves adjusted to limit the maximum speed going upgrade to 20 fpm (6.1 m/min).
- F. ~~All conditions that prevent the proper functioning of the travelers and appurtenances shall be corrected at the Contractor's expense, as approved by the Engineer.~~ Travelers required to cross an expansion joint in service shall cross at least one expansion joint in each direction during the field test.
- G. All testing shall be performed in the presence of the Engineer.
- H. The Engineer shall be notified at least 5 working days in advance of starting shop test and 3 working days in advance of starting the field test.
- I. Every trolley train shall be shop tested to show that it can negotiate the required rail curvature without binding or jamming. The test radius shall be 5.0 meters for the bikepath traveler trolley train and 10.0 meters for the SAS and E2/E3 trolley trains.
- J. Shop testing shall prove the ability of the "dynamic" brakes to stop the traveler safely from a speed of 30 fpm (9.1 m/min) when fully loaded and moving downgrade.
- K. The Contractor shall perform tests after installing the hoses to insure the lines are airtight. The test shall be conducted for a period of one hour at the design pressure.

The Contractor shall test and start up mechanical systems upon installation of the travelers. The Contractor shall follow the equipment manufacturers' break-in procedures before full load testing for all equipment. Final adjustments and balancing of the systems shall be performed so they will operate as specified. The Contractor shall replace or revise any equipment or work found to be not operating as specified during tests. Particular care shall be used in lubricating bearings to avoid damage by overfilling with lubricant and blowing out seals.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

Defective work shall be repaired at the Contractor's expense. The Contractor shall be responsible to ensure that the pneumatic systems perform in accordance with the operational and functional requirements.

~~The Contractor shall furnish, install and remove all apparatus necessary for performing the tests.~~

TRAVELER SCAFFOLD MECHANICAL**General**

Traveler scaffold mechanical consists of furnishing, fabricating, and installing the traveler scaffold mechanical equipment, including the on board air lines, in accordance with the details shown on the plans, the provisions in Section 55, "Steel Structures," of the Standard Specifications and these Special Provisions.

The fourth paragraph in Section 55-2.07, "Unidentified Stock Material," of the Standard Specifications shall not apply. Mechanical work shall include furnishing all detailed ~~design~~ working drawings, labor, materials, equipment and services required to provide operating travelers.

Skew Control Requirements – SAS and E2/E3 Travelers

Each traveler shall be equipped with a positive acting anti-skewing system consisting, in part, of motor controls and, in part, of "dynamic" brakes operated by air relief valves or similar devices. The anti-skewing system has been designed to limit the maximum skew that can develop when the traveler is traveling at 20 feet per minute (6.1 m/min) to a 5.7° (10%) skew.

The traveler has been designed with a "dynamic" brake system capable of stopping the traveler from a speed of 30 feet per minute. The "dynamic" brakes shall be spring actuated and air release. The motorized trolleys shall not be used as a component of the dynamic braking system.

Skew indicators shall be provided at each operator station to show the traveler operator the degree of skew of the travelers with respect to the traveler rails. Two skew indicators shall be provided at each station, one for each direction of travel, allowing the operator to have a skew indicator in his/her field of view while operating the traveler from either side of the operator station.

The operator's station shall be designed so that the operator is able to face the direction of travel and operate the traveler safely in both directions. Two foot-operated deadmans shall be provided at each operator's station so that the traveler can be operated from either side of the operator station. The operator shall be required to keep the foot valve depressed in order to operate the throttle valves.

The anti-skew system shall actuate the "dynamic brakes" when the traveler approaches its critical skew limit of 5.7 ° and shall bring the traveler to a stop from 20 fpm before the skew exceeds 5.7°.

The skew indicators shall be delineated with different colors as shown on the plans to indicate the three ranges of operation. The colors are as follows.

Green indicates normal operation. – zero to 2.8° skew.

Yellow indicates the traveler is skewed beyond the normal operating range of +/- 2.8°. Under this condition the motors on the side causing the skew are to be shut down, allowing the motors on the other side to catch up. The operator shall be able to over-ride the motor shut down when it is necessary to operate the traveler at greater than 2.8° skew. This is to be done by using a hand operated valve that is held closed by a spring and must be depressed by the operator to be opened.

Red indicates the traveler has reached or exceeded its critical skew limit. All brakes shall be applied as the limit is approached to prevent the development of skew exceeding 5.7 ° before the traveler is halted. The operator shall then be able to manually release the brakes in order to bring the traveler back to a reduced skew. A brake release shall be provided. It shall be a hand operated valve that is held closed by a spring and must be depressed by the operator to be opened.

Equipment

All equipment shall be manufactured from material that is resistant to deterioration or corrosion in a marine environment or shall have a protective coating to provide such resistance. Seals and gasket material shall be suitable for air or non-corrosive gases and shall be resistant to deterioration in a marine environment and to hydrocarbons (air-entrained petroleum or vehicle exhaust).

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Miscellaneous bolts, nuts, washers, fasteners, and springs otherwise unspecified shall be ~~18-8~~ type 304 stainless steel.

All equipment shall be capable of operating in a temperature range of ~~-6~~ 0° C to ~~95~~ 80° C or as approved by the Engineer and shall be rated for operation in a pressure range from 170 kPa gauge to 1,000 kPa gauge. (25 to 145 psig) unless otherwise noted. Operating pressure available at the air supply piping on the bridge may vary from ~~550~~ 490 kPa to ~~790~~ 620 kPa (80 to 115 psig). For the linear actuator air motors, pressure relief valves are to be supplied to prevent the application to the motors of pressures in excess of 690 kPa (100 psig) under any circumstances.

Traveler supplier is to verify that all components of the mechanical and pneumatic systems are compatible with each other and with the structural components.

Lubrication points shall be furnished with pressure type lubrication fittings. All bearings requiring greasing shall be equipped with grease fittings. Grease fittings shall all be one size and shall be located for easy access.

Codes

All work, including equipment, material and installation, shall conform to California Administrative Code, Title 8, Division of Industrial Safety.

The Contractor shall coordinate the supply of the quick disconnect fittings that are mounted on the bridge with those on the travelers.

Sole Source Supplier

The piston motor driven trolleys, the passive trolleys, and the brake trolleys shall be obtained from the following manufacturer:

VENDOR ADDRESS AND PHONE NUMBER
ELECT AIR 4385 EAST LOWELL STREET <u>11897 CABERNET</u> <u>DRIVE, SUITE C</u> ONTARIO, CA 91761-2228 <u>FONTANA, CA 92337</u> TEL: 909-390-0770 <u>951-685-1675</u> FAX: 800-390-0776

The unit prices quoted by the supplier for the trolley items are as follows:

ATET-MR3/ <u>D</u> 05065B	\$16,101.98 each
BrkTrolley/ <u>D</u> 03003B	\$5,882.87 each
BTP-MR 3-6 / <u>D</u> 04028B	\$3,772.93 each

The prices quoted are effective for all orders placed on or before 6/30/2006, provided delivery is accepted within ~~442~~ 180 days after the order is placed. The FOB location is Seattle, Washington. The above prices include freight, and insurance to FOB location, technical advice, inspection by a qualified representative of the manufacturer during installation and a final inspection of the installed trolleys, but do not include taxes.

The total price will be increased 5% per year for each year thereafter through 2011, provided delivery is accepted within ~~442~~ 180 days after the order is placed.

The Ingersoll Rand Component Identification Codes listed in the Plans and Specifications describe the general category of components. The Specific and Final Part Identification Codes are established by Ingersoll Rand, in consultation with the Engineer so as to reflect the particular variances from standard components for this project.

Products

For the purposes of completing the detailing of the individual components of the travelers selection of specific mechanical equipment has been made. The products is and their component(s) are is named on the plans or in this specification.

The specific items named are suitable and acceptable for use on these travelers. The traveler supplier may substitute other items in place of the listed equipment provided that the strength and performance of the proposed substitution is at

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least equal to the performance of the named item and that the durability of the substitution is at least equal to that of the named item.

Any such proposed substitutions shall be submitted to the Engineer with sufficient documentation to support their acceptance. The Engineer will determine the acceptability of the proposed substitution.

Should the substitution be found acceptable, the traveler supplier shall re-detail, at his expense, any components that require alteration as a result of this substitution.

- A. Reversible Radial Piston Motor Driven Trolley ~~(motor trolley)~~ Piston motor driven trolley shall be Ingersoll-Rand series ATET –MR3/6D05065B air driven trolley or approved equivalent and shall be installed in accordance with the details shown on the plans. The drive wheels shall be connected to the air motor by means of a geared speed reducing power train.

Piston motor driven trolleys shall be rated by the manufacturer ~~to have a minimum Factor of Safety~~ as follows:

Rated Load ~~—6000 kg @ 5:1 Factor of Safety~~ for “Man Rider” application – 3000kg with Minimum 10:1 Safety Factor.

The manufacturer shall certify that the trolleys are structurally capable of carrying a the Rated Load of ~~6000~~3000 kg with a Factor of Safety of at least ~~5.0~~ 10.0. ~~Note that the actual service loads on the trolleys are substantially less than the rated loads noted above.~~

The drive wheels shall be cast iron or ductile iron or surface hardened~~mechanical~~ steel and shall have a ~~compound~~ tread shape suitable for operation on the lower flange of the 127 mm wide flat flange rail (bikepath wheels) ~~and/or~~ the 181 mm wide ~~taper~~ flat flange rail (other wheels) and shall provide adequate clearance from the splice plates and jumper assemblies.

The units shall have ~~the “a~~ a marine grade epoxy finish. ~~in accordance with these Special Provisions.~~

The air motor shall be 4 cylinder reversible, radial piston-type ~~having a remote control valve chest.~~ Crank pin and connecting rods shall be drop forged construction. Bearings and shafting shall have dust shields.

Starting, reversing and stopping of the traveler scaffold shall be accomplished by means of remotely controlled throttle installed as shown on the plans and specified herein.

Wheel treads shall be hardened. Wheel tread hardness shall be ~~275~~ a minimum of 269 BHN.

- ~~B. **Passive trolley** – Passive trolley shall be Ingersoll Rand – Model BTP-MR-316 or approved equivalent. Trolleys shall have cast iron, ductile iron or surface hardened steel wheels hardened to BHN-269 with compound treads for operation on flat and tapered flanges and shall be equipped with thrust ball or roller bearings in hardened races and with dust seals. Trolley wheels shall be suitable for operation on the lower flange of the traveler rails. Trolley wheels shall have a Rated Load of 1500 kg each with a 5:1 minimum Factor of Safety. The assembled trolley shall have a Rated Load of 6000 kg with a minimum factor of safety of 5:1. Note that the actual applied load is substantially less than the Rated Load. Trolley shall have a marine grade epoxy finish.~~

- ~~C. **Brake trolleys** – Brake trolleys shall be as shown on the plans. Brake trolleys shall have cast iron, ductile iron or surface hardened steel wheels with compound treads and shall be equipped with thrust ball or roller bearings in hardened races and with dust seals. Trolley wheels shall be suitable for operation on the lower flange of the traveler rails. Trolley wheels shall have a Rated Load of 1500 kg each with a minimum Factor of Safety of 5:1. Brake trolley shall have a marine grade epoxy finish.~~

- ~~D. **Air Actuated Safety parking brake** – The brakes shall be spring-actuated to set the brake full stop. Brake release shall be by air pressure. Each brake shoe shall be operated by a brake chamber.~~

~~The position of the fabric-lined brake shoe shall be controlled by means of an operating cylinder having a bore of approximately 152 mm diameter and a single acting spring loaded piston. Stroke shall be 50 mm minimum. The brake shall be rated at 590 kg clamping force at 58 mm and 840 kg at 0 mm stroke. The brake shall set at 25 mm stroke. Brakes shall release to 0 mm stroke under 480 kPa air pressure.~~

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~~Brake shoe shall provide a minimum holding capacity of 2.7 kN on galvanized rail with a minimum factor of safety of 1.33.~~

~~Under a condition of zero gauge air pressure, the safety parking brake shall be in the "on" position preventing movement of the travelers.~~

~~E. **Foot-operated Poppet Valve.** – The foot-operated poppet valve shall be a 3-way foot-operated, spring return, normally closed poppet valve. The valve shall have a bronze body and NPT National Pipe Thread ports and shall be suitable for the anticipated air flow at 860 kPa gauge minimum working pressure. Downstream side shall be at atmosphere when "off."~~

~~F. **Throttle control valve** – The throttle remote control valve shall be a lever operated disc or rotor type. Valve shall have mechanite body and National Pipe Thread ports and, when supplied with 690 kPa gauge inlet air, the valve shall be rated for the anticipated air flow capacity. Valve shall be suitable for at least 860 kPa working pressure.~~

~~G. **Compressed air piping** – Piping for air lines on the traveler shall be rigid pipe of the nominal size Imperial shown on the plans with flexible hose for no more than 750 mm connecting to the brakes and motors unless longer lengths of flexible hose are shown on the drawings.~~

~~H. **Ball valve** – Ball valves shall be Class 400 bronze body with bronze trim and threaded ends.~~

~~I. **Whistle** – Whistles shall be 38 mm bell diameter and produce 100 dB tone minimum at 690 kPa supplied air pressure.~~

~~J. **Whistle valve** – Whistle valve shall be a poppet valve, 2-way lever operated, normally closed type. The valve shall have brass steel body and NPT National Pipe Thread ports and, when supplied with 690 kPa gauge inlet air, the valve shall be rated for a flow capacity of 42 L/s, and shall be suitable for 1,000 kPa gauge minimum working pressure.~~

~~K. **Flexible Hose** – Flexible hose shall have a rubber core, 2 synthetic body plies and a weather and abrasion resistant cover. Hose shall have a minimum rated pressure of 2,000 kPa. All clamps, couplings, and other hardware used in conjunction with the hose shall be made of stainless steel and shall be rated for 2,000 kPa.~~

~~L. **Quick coupling** – Quick coupling shall be claw type, bronze body, with neoprene gasket. NPS threaded ends for pipe, and barb end for hose. This shall not apply to the quick disconnects specified in item V below.~~

~~M. **Pressure regulator assembly** – Pressure regulator assembly shall be combination type, with 50 micron filter element rating, automatic drain and plastic bowl, 0 kPa to 1,000 kPa pressure regulator with pressure gauge, and 500 ml lubricator. The filter and lubricator elements shall be similar in size and appearance and shall be supplied by the same manufacturer. A manual drain shall be supplied at the low point of the oil storage bowl. Port sizes for both elements shall be the line size.~~

~~N. **Pressure gages** – Pressure gages shall be included and shall be 50 mm dial type, Grade A, and National Pipe Thread back ported. Pressure gages shall have a range of 0 kPa to 1,350 kPa.~~

~~O. **Double check valve** – Double check valve shall be bronze body, NPT 1/2 inlets and NPT 1/2 outlet with a stainless steel ball. The valve shall be rated for at least 860 kPa operating pressure and shall be of the type used for truck braking systems.
The purpose of this valve is to supply pressure to the brake cylinders to release the brake when the foot operated poppet valve has been actuated and to vent the brake cylinders to atmosphere once the foot operated poppet valve is released.~~

~~P. **Compressed air piping** – Piping for on board air lines shall be Schedule 40 galvanized steel pipe conforming to ASTM Designation: A 53, Type S, Grade B. Fittings shall be extra heavy type, galvanized steel or malleable iron.~~

~~Q. **Dump (Quick Exhaust) Valve** – Dump valves are to be provided for each braking system to ensure quick operation of the brakes. Dump valve is to be pilot-operated and spring loaded and suitable for quick exhausting of the brake cylinders.~~

B. **Passive trolley** – Passive trolley shall be Ingersoll Rand – Model BTP-MR3-6/D04028B or approved equivalent. Trolleys shall have cast iron, ductile iron or surface hardened steel wheels hardened to a minimum of BHN 269 with

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a tread suitable for operation on flat flanges and shall be equipped with thrust ball or roller bearings in hardened races and with dust seals. Trolley wheels shall have a Rated Load capacity that is compatible with the rated load for the trolley. The assembled trolley shall have a Rated Load for "Man Rider" application of 3000 kg with a minimum factor of safety of 10.1.

Trolley shall have a marine grade epoxy finish.

C. Brake trolleys - Brake trolleys shall be Ingersoll Rand Brake Trolley Model BrkTrolley/D03003B incorporating a safety parking brake as described below. Brake trolleys shall have cast iron, ductile iron or surface hardened steel wheels with a tread suitable for operation on the lower flange of the traveler rail. The wheels shall be equipped with thrust ball or roller bearings in hardened races and with dust seals. Trolley wheels shall have a capacity that is compatible with the rated load for the trolley. The assembled trolley shall be certified by the manufacturer to have a Rated Load for "Man Rider" application of 3000 kg with a minimum factor of safety of 10:1. Brake trolley shall have a marine grade epoxy finish.

D. "Dynamic brakes" – The SAS and E2/E3 travelers have been detailed using a Twiflex model MX25-S air operated brake. This brake is known to be suitable and acceptable for this application. Should the fabricator wish to propose the use of other brakes that are equivalent both in function and durability, it shall be his responsibility to re-detail all elements affected by such a substitution. The brakes shall be suitable for operation on the lower flange of the traveler rail and shall provide adequate clearance from the splice plates, rail stops, and jumper assemblies. The brake caliper must be spring applied and retracted by pneumatic pressure. The caliper shall produce a minimum of 8.9 kN (2000 lbf) of force when spring applied. The caliper shall be capable of being fully retracted at a minimum applied pressure of 482.6 kPa (70 psi). Before installation the brake calipers shall be disassembled and all mating surfaces and shafts lubricated with a Molybdenum disulfide Lithium based multi-purpose grease. The dynamic brake units shall be finished as recommended by the manufacturer and approved by the Engineer.

E. Air Actuated Safety parking brake - The brakes on the Bikepath traveler shall be spring-actuated to set the brake full stop. Brake release shall be by air pressure. Each brake shoe shall be operated by a brake chamber.

Each brake shall provide a minimum holding capacity of 2.7 kN on galvanized rail with a minimum factor of safety of 1.33.

Under a condition of zero gauge air pressure, the safety parking brake shall be in the "on" position preventing movement of the traveler.

F. Poppet Valves (Parts 2N, 2S, 3, and 5a on Sheet 1134S1R2 and Part 38 on Sheet 1135S1R1) - The poppet valves for the main air systems shall be 3-way pilot operated, spring return, poppet valves. The valves shall have a brass or stainless steel body or as approved by the Engineer, NPT (National Pipe Thread) ports, and shall be suitable for the anticipated air flow at 620 to 790 kPa gauge (90 to 115 psig) working pressure. Valves shall be rated for at least 860 kPa operating pressure.

- The main system poppet valve (Item 3) shall be a normally closed valve. The valve shall vent the complete trolley motor air system to atmosphere when closed. The valve shall be controlled by foot-operated pilot valves.
- The skew control poppet valves (Items 2N and 2S) shall be normally open valves. The valves shall vent the trolley-side to atmosphere when closed.
- The elevating platform main air poppet valves (Item 38) shall be normally closed valves. The valves shall vent the motor-side to atmosphere when closed. The valves shall be activated by foot-controlled pilot valves.
- Trolley Air Lockout Valve (Item 5A) shall be a 3-way, normally open, pilot operated, port size ¼" valve.

G. Throttle control valve – The throttle control valve shall be proportional, shall be manually directly controlled and shall be suitable for the full airflow. The valve shall incorporate porting to control the release of the brakes. The valve shall also incorporate an emergency stop button. Ingersoll Rand control valves from the "Force Five" series winches are known to be suitable for this application. Other valves of equal performance and durability are acceptable. The valve shall have a brass or stainless steel body or as approved by the Engineer.

H. Compressed air piping - Piping for air lines on the traveler shall be schedule 40 galvanized steel pipe conforming to ASTM A53 Type S Grade B of the nominal size Imperial shown on the plans, with flexible hose for no more than 750 mm length connecting to the brakes and motors unless longer lengths of flexible hose are shown on the drawings. Fittings shall be extra heavy type, galvanized or malleable iron or as approved by the Engineer.

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- I. **Ball valve** - Ball valves shall be Class 400 brass or stainless steel body with brass trim and threaded ends unless otherwise specified or as approved by the Engineer.
- J. **Whistle** - Whistles shall be 38 mm bell diameter and produce 100 dB tone minimum at 690 kPa supplied air pressure or as approved by the Engineer.
- K. **Whistle valve** - Whistle valve shall be a poppet valve, 2-way lever operated, normally closed type. The valve shall have brass or stainless steel body or as approved by the Engineer, NPT National Pipe Thread ports, and, when supplied with 690 kPa gauge inlet air, the valve shall be rated for a flow capacity of 42 L/s, and shall be suitable for 1,000 kPa gauge minimum working pressure.
- L. **Flexible Hose** – Flexible hose shall have a rubber core, 2 synthetic body plies and a weather and abrasion resistant cover. Hose shall have a minimum rated pressure of 2,000 kPa. All clamps, couplings, and other hardware used in conjunction with the hose shall be made of stainless steel and shall be rated for 2,000 kPa, or as approved by the Engineer.
- M. **Quick coupling** - Quick coupling shall be claw type, brass or malleable iron or as approved by the Engineer, with neoprene gasket, NPT threaded ends for pipe, and barb end for hose. This shall not apply to the quick disconnects specified in item U below. Attention is directed to couplings specified in Section 10-4.02 "Pipe, Fittings and Valves". One adapter for each traveler shall be provided to convert one coupling to the other, with minimal hose or fittings between them.
- N. **Filter, Pressure Regulator, and Lubricator.** The pressure regulator, lubricator and the filter shall be separate units. The pressure regulator with pressure gauge shall be capable of regulating pressure from 0 kPa to 1000 kPa. The lubricator shall have a nominal reservoir size of 1 liter (1 quart US) and have a screw-on bowl with a manual drain at the low point of the storage bowl. The filter shall have a 40 micron filter element rating with an automatic drain. All units shall have aluminum or die cast bowls or as approved by the Engineer. All units (regulator, lubricator, and filter) shall be supplied by the same manufacturer. Port sizes for all elements shall be the line size.
- O. **Pressure gages** - Pressure gages shall be included and shall be 50 mm dial type, Grade A, and National Pipe Thread back ported. Pressure gages shall have a range of 0 kPa to 1,350 kPa.
- P. **Double check valve (shuttle valve)** - Double check valve shall be brass or stainless steel body with a stainless steel ball, or as approved by the Engineer. The valve shall be rated for at least 860 kPa operating pressure.
- The purpose of valve Item 6 is to supply pressure to the brake cylinders to release the brake when the foot operated poppet valve has been actuated and to vent the brake cylinders to atmosphere once the foot operated poppet valve is released.
- The purpose of the valve Item 6A is to collect the signals from the two elevating platform limit switches (E2/E3 travelers only) so as shut off trolley air to prevent the trolley motors from operating if either one of the elevating platforms is above its parked (fully down) position
- Q. **Dump (Quick Exhaust) Valve** - Dump valves are to be provided in the braking system to ensure quick operation of the brakes and also in the pilot circuits to ensure rapid dissipation of the pilot signals. Dump valves are to be pilot operated and spring loaded and suitable for quick exhausting. The valve shall be brass or stainless steel body or as approved by the Engineer.
- R. **Linear Actuators** – Linear actuators shall be supplied by one of the following manufacturers, or equal:

VENDOR ADDRESS AND PHONE NUMBER

TEMPLETON KENLY
 SIMPLEX (A Division of Templeton Kenly)
 2525 Gardner Road
 Broadview, IL 60155

Phone: 800-275-5225

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Fax: 708-865-0894
NOOK INDUSTRIES, INC. 4950 East 49 th Street Cleveland, Ohio 44125-1016 Phone: 216-271-7900 Fax: 216-271-7020
JOYCE-DAYTON CORP. P.O. Box 1630 Dayton, Ohio 45401 Phone: 937-294-6261 Fax: 937-297-7173

For the purposes of completing the detailing of all associated components, a specific selection has been made for linear actuators. The units selected are Templeton Kenly, Unilift, M Series screw actuators. The specific unit descriptions are shown on the plans. Substitutions of equivalent performance may be proposed for review by the Engineer. Should such substitution be accepted, the traveler supplier shall re-detail, at his expense any components affected by the substitutions. Ball screw actuators will not be accepted as a substitution due to potential backwards movement under load.

The actuator load screws and exposed shafts shall be steel that is electroplated as specified in these special provisions, that will withstand severe environmental exposure including salt-laden air.

The actuator screws for the M50 units shall be made from mechanical tubing to reduce weight.

Each actuator shall be supplied with a protective rubber boot as shown on the plans.

Actuators shall be marine grade epoxy coated.

- S. Actuator Drive Air Motors** - Actuator drive air motors shall be supplied by one of the following manufacturers, or equal

VENDOR ADDRESS AND PHONE NUMBER
Ingersoll-Rand Ingersoll-Rand Productivity Solutions Group 510 Hester Drive Whitehouse TN 37188 Phone: 800-866-5457 Fax: 615-672-7678 INGERSOLL-RAND Phone: 800-866-5457
CooperTools 6500 West Sam Houston Parkway North, Suite 200 Houston, TX 77041 Phone: 713-849-2364 Fax: 713-849-2647 713-849-2047
PSI Automation 2113 Seabrook Circle Seabrook, TX 77586 Phone: 800-392-3602 Fax: 281-280-8795 281-474-2557

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For the purposes of completing the detailing of all associated components, a specific selection has been made for the drive motors for the linear actuators. The units selected are Ingersoll Rand units. The specific model numbers are as shown on the plans.

Substitution of units with equivalent performance and durability may be proposed for review by the Engineer.

Should such substitutions be accepted, the traveler supplier shall re-detail, at his expense, all affected components. Substitute air motors shall have starting, running and stall torque values within 10% of the values for the selected motors within the pressure range of 490 to 690 kPa.

The maximum force in the actuators at stall out of the motors must not exceed the current value by more the 10%.

The motor starting torque available at 490 kPa air pressure shall be sufficient to extend the proposed actuators under the following axial compressive loads:

Type	Axial Compressive Load
ACT 03, 04, 05, and 06 (M50)	40.0 kN, min
ACT 01 and 02 (M30)	31.5 kN, min

The ultimate column buckling strength of the proposed actuators shall meet or exceed the following values:

Unit Type	Unsupported Length, min	Ultimate Column Buckling Load
M30	3581 mm	176 kN
M50	4583 mm	170 kN

Ultimate column buckling load = (1.5 x dead load) + (10 x live load)

Drive motors shall be marine grade epoxy coated.

I. Couplings and Shafts - Couplings and shafts shall be of the type shown on the plans and shall be rated for the torque values shown on the plans. [The finish shall be as recommended by the manufacturer and approved by the Engineer.](#)

U. Quick Disconnect Couplings - The description applies only to the quick disconnect couplings that are used on the E2/E3 travelers to change suspension systems at Hinge A. [Quick disconnect couplings shall be used unless otherwise approved by the Engineer.](#)

The purpose of these couplings is to allow disconnection of the air supply to either trolley train as the suspension is changed from SAS rails to Skyway Rails.

The requirements are shown schematically on the plans.

The manufacturer is to propose a style and model of disconnect coupling that is suitable for this use, that can be disconnected and re-connected without the use of tools and that will close off the disconnected hose ends such that full operating air pressure can be applied against the disconnected free ends.

V. Limit Switch Valves - [The valves controlling the response to excessive skew and the valves to sense when the elevating platforms are fully down \(limit switch valves\) shall be mechanically activated spool valves, 3/2 function, 1/4" NPT ports with roller lever activation and spring return, Norgren 03-0611-22, or equivalent, as approved by the Engineer.](#)

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W. 3-Way Manual Diversion Ball valve – 3-Way Manual Diversion Ball valve shall be provided with SS Latch-Lock Lever and Nut. It shall have bronze or stainless steel body with a stainless steel ball and stem or as approved by the Engineer. The valve shall be rated for at least 2000 KPa operating pressure.

The purpose of this valve is to allow maintenance personnel to release the downline pressure, and lock the ball valve in the closed position, to prevent accidental operation of the system, while the system is in repair mode

X. In Line Lubricators at Motors. The lubricator shall have a nominal reservoir size of 0.5 liter (0.5 quart US) and have an aluminum or die-cast screw-on bowl or as approved by the Engineer with a manual drain at the low point of the storage bowl. The lubricator shall have a metering device to adjust the amount of lubricant introduced into the air line.

Y. Pedal Operated Deadman Valve (Items 5 and 40). Valve 5 is a 1/4" NPT, 4 way, 5 ported, 2 position, pedal operated, spring return pneumatic valve. The pedal must be depressed to activate valve 3 to supply main system air to the throttle control valve. 2 valves are supplied in the circuit to allow the traveler operator to face the direction of travel so desired. The valve shall have a brass or stainless steel body or as approved by the Engineer.

OPERATION

Each traveler shall be equipped with ~~two~~ one control stations mounted in the position shown on the plans. The control stations shall ~~be incorporate~~ a watertight and corrosion resistant enclosure for the controls.

Manually operated proportional control throttle valves shall be provided, one to control each side of the traveler. The throttle controls for the traveler trolleys and the linear actuator motors shall be equipped with deadman controls, which interrupts for controls the air flow when the operator becomes incapacitated or cannot continue to operate the controls.

The main air supply to all functions shall be controlled by a normally closed main system valve actuated by a deadman control. This deadman control shall be knee or foot operated. Manually operated proportional control throttle valves shall be provided, one to control each side of the traveler.

When the distribution piping is connected to the bridge air system nominal (nominal 690 kPa gauge, 490 kPa gauge minimum), a single operator shall be able to operate the traveler by depressing the foot valve and moving the two hand throttles from the neutral position. The following shall be the sequence of operation for the traveler trolley motors:

- A. The foot-operated ~~peppet~~ pilot valve is depressed activating the main system valve.
- B. Air is transmitted to ~~release the brake and~~ provide air to the throttle valves.
- C. The hand controls of the throttle valves are moved to the desired port alignment to allow air flow to the motors and to release the brakes. Flow to the motors shall be proportional to hand control movement.
- D. When the throttle and control handle is returned to the neutral position air supply to the motors is cut off and the motors stop. Air to the brake release is also interrupted and the quick dump valves will exhaust the brake air thereby setting the brakes. The control handle shall return automatically to the neutral position when released.
- E. When the foot valve is released, all ~~air to the brake and throttle valve~~ is cut off, causing the spring-loaded brakes to set and the throttle valve to become inoperative. The foot valve is a dead man safety control, ~~which causes the brake to set whenever the pedal is released.~~
- F. Limit switches at each elevating platform will produce a signal that interrupts the air supply to the trolley motors if either of the elevating platforms is raised above its parked (fully down) position. The traveler cannot move unless the platforms are down.

SUBMITTALS**Working Drawings**

The Contractor shall submit working drawings to the Engineer for approval in accordance with the provisions in "Working Drawings," of these special provisions.

The Contractor shall allow 50 days for the review by the Engineer after complete drawings and all supplemental data, including calculations and calculated weights, are submitted. Fabrication shall not commence until the Engineer's approval is received.

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Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

The working drawings shall contain all information required for the quality control and proper construction of maintenance travelers.

Working drawings shall include the following:

- A. Complete details, material specifications and schedules for fabrication and shop assemblies. Complete details shall include, but not be limited to, all components, materials, and methods to support, propel, and brake the travelers.
- B. Details showing the fit and assembly of all steel and other elements required to complete the work.
- C. Complete piping and control diagrams showing interconnection of all pneumatic apparatus and equipment.

Calculations for all mechanical components and/or systems designed or detailed by the fabricator, and also the associated working drawings, shall be stamped and signed by an engineer who is registered as a Mechanical Engineer in the State of California.

The Contractor shall verify space availability, fit-up and compatibility for any and all component equipment and apparatus to be installed.

The Contractor shall confirm all dimensionings, clearances and fit of the travelers to the permanent structure. Any conflicts shall be brought to the attention of the Engineer for resolution.

Product data

A list of materials and equipment to be installed, manufacturer's descriptive data, and such other data as may be requested by the Engineer shall be submitted for approval prior to purchase and fabrication.

Manufacturer's descriptive data shall include complete description, performance data and installation instructions for the materials and equipment specified herein.

The Contractor shall submit manufacturer's descriptive data to the Engineer for approval.

The Contractor shall allow 10 weeks for the review by the Engineer after all data are submitted.

Operation and Maintenance Manuals

Prior to the completion of the contract, 5 ~~identified~~ identical copies of the operation and maintenance instructions (with parts lists) shall be delivered to the Engineer. The instructions and parts lists shall be in a bound manual form and shall be complete and adequate for the equipment installed. Inadequate or incomplete material will be returned. The Contractor shall resubmit adequate and complete manuals at no expense to the State.

Manuals shall include, but not be limited to, the following:

- A. Index
- B. Vendor names, addresses and telephone numbers
- C. Manufacturer's published literature describing equipment capacity and function
- D. Complete operating and maintenance instructions with exploded views of assemblies and step by step sequence of assembly and disassembly.
- E. Complete nomenclature of all parts, part numbers and current cost
- F. Copies of all guarantees and warranties
- G. Copies of approved shop drawings
- H. Copies of "as-built" drawings
- I. Copies of approved catalog cuts
- J. Complete lubrication chart indicating location, type and frequency of lubrication
- K. Trouble shooting information
- L. Preventative maintenance requirements

Spare Parts

The Contractors shall supply the following items as spare parts. These shall be delivered to a location to be specified by the owner.

- 2 - piston motor driven powered trolleys
- 1 - passive trolley (complete)
- ~~4~~ 24 - brake actuator cylinders for the brake trolleys on the bikepath traveler.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 24 Suppl. No. 1 Contract No. 04 – 0120F4 Road SF-80-13.2/13.9 FED. AID LOC.:

- 100% extra quantity of brake pads for each traveler outfitted with Twiflex "dynamic" brakes
- 8 - trolley wheels for the powered trollies
- 2 – trolley wheels for the passive trollies
- 100 % extra quantity of nylon bearing for the large traveler (E2/E3 and SAS) suspension arms
- 4 – Twiflex caliper brake units complete
- ~~100% extra quantity of nylon bearings for sliding rail connections for traveler rails crossing the Hinge A joint.~~
- ~~10% extra quantity of 6.4 and 9.5 mm thick teflon pads for sliding rail connections~~
- 4 - extra throttle valves for control of the air powered trollies and the linear actuator motors
- 24 - extra air motors for operation of the linear actuators (one of each type)
- 10% extra, (minimum quantity 2) – of every other pneumatic circuit component
- 1 - extra M50 actuator unit without load screw
- 1 - extra M30 actuator unit without load screw
- 100% extra quantity of the assembly pins for the large traveler suspension systems
- 20% spares for the skew control and elevating platform limit switch valves

Supply Only Items

The following items are to be supplied which are not specifically shown on the plans.

- A. Two – 10 ton capacity chain falls for each of the E2/E3 travelers – total 4
- B. A steel tool and storage box 1 m x 0.8 m x 0.8 m for each of the 5 travelers. to be left on the traveler.

Trolley Units and Actuator

The steel used for the support wheels, gears, axles, bushings, and other appurtenances shall be specified by the respective manufacturer or Contractor. Wheels shall be either cast or forged. The steel classification and specifications shall be submitted to the Engineer for approval prior to purchasing and fabrication.

All components of the mechanical and pneumatic systems supplied shall be ~~designed to be~~ compatible with each other and with the structural components.

MEASUREMENT AND PAYMENT

Maintenance travelers, of the types shown on the Engineer's Estimate, will be measured and paid for on a lump sum basis.

The contract lump sum price paid for maintenance travelers of the types listed in the Engineer's Estimate shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in the maintenance travelers, complete in place, including, but not limited to, detailing, mechanical component selection, assembly, erection, shop and field testing, and operator instruction, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 10/06/2009

Page 1 of 2

DC-CEM-4903 (OLD HC-39 REV. 6/93) CT# 7541-3544-0

TO Pete Siegenthaler, Principal TE			FILE 04-0120F4	
FROM Gary Pursell, STE / Richard Morrow, SBE			04-SF-80-13.2/13.9	
CCO NO. 24	SUPPLEMENT NO. 0	CATEGORY CODE CHPK	CONTINGENCY BALANCE (including this change) \$ 111,459,931.40	
\$1,532,557.11			HEADQUARTERS APPROVAL REQUIRED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
SUPPLEMENTAL FUNDS PROVIDED \$ 0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
CCO DESCRIPTION: Traveler Rail Modifications			PROJECT DESCRIPTION CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time 2490 Day(s)	Time Adj.: This Change 0 Day(s)	Previously Approved CCO Time Adjustments 227 Day(s)	Percentage Time Adjusted: (including this change) 9 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 6

THIS CHANGE ORDER PROVIDES FOR:

Substituting the maintenance traveler support rails, from the "S"-beam shape shown on the as-bid contract plans, to a welded built up beam shape. Sixty-seven (67) contract plan sheets are revised to reflect this change and associated dimensional revisions on the SAS and the steel transition span constructed as part of the Skyway portion of the San Francisco-Oakland Bay Bridge (SFOBB).

This change was prepared and proposed for incorporation into the contract bid documents as part of Addendum No. 8 on 01-31-06 and was intended to supplement changes made by Addendum No. 6 which had already been incorporated into the bid documents. The Toll Bridge Project Oversight Committee (TBPOC) subsequently directed that Addendum No. 8 not be issued and that these (and other) changes instead be incorporated into the Contract by change order after Contract Award. This change order incorporates details proposed in the subsequent Design Change Request ("CR") 13.

Anti-skew devices and dynamic brake systems are required to be added to the maintenance travelers to mitigate operational and safety concerns, pursuant to lessons learned on other Toll Bridge contracts. These systems require a change from the "S"-rail to the built up section rail to provide flat flanges on both sides of the rail web, which is not provided by the sloping single flange of "S"-rail detailed in the as-bid plans. Originally, the change request proposed a "W" section rail to replace the "S" rail, however it was determined that such a section in the size needed was not available at the Contractor's fabrication site and it would be more cost effective to use a built up section.

A portion of the traveler rail extends to the Skyway portion of the SFOBB completed on contract 04-012024. Since the original change request, it was determined that the original railing used on the Skyway was not compatible and additional built-up section rail and brackets would have to be procured and the original railing would have to be removed.

Authorization to proceed on procurement and fabrication of the traveler rails was given to the Contractor due to the long fabrication lead-time. The Contractor submitted and the Department approved shop drawings for the rails. Subsequently it was discovered that the Department approved certain details in error, but fabrication had already begun. Some of the contract plan details included in this change order were modified to mitigate the rework costs for materials already fabricated. This change order includes compensation for the Department's share of the rework costs, which was not part of the original scope.

CCO 108 compensated the Contractor for a number of outstanding issues, including a portion of the above-discussed changes; therefore a corresponding credit is taken on this change order. Subsequent to this negotiation, further small adjustments to the details of the rail mounting and the cross beam rail alignment were identified and added to this change order.

In addition, this change order also compensates the Contractor for delays in procurement of sole source materials for the traveler suspension system and advance procurement of necessary materials and preliminary work for testing and evaluation of the travelers.

CCO 24 Supplement 1 will be issued to include changes to the remaining traveler components, including trolleys, brake systems, anti-skew devices, traveler structural changes, and paint and epoxy coatings.

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 10/06/2009

Page 2 of 2


DC-CEM-4903 (OLD HC-39 REV. 6/93) CT# 7541-3544-0

Total cost of this change order is estimated at \$1,532,557.11. All work associated with this change order can be financed from the contingency fund. A detailed cost estimate is on file.

A determination of the delay in completion of the contract due to work specified by this change order, has been made in CCO 108S1 and is part of the Claims Settlement Report (CSR) No. 1 for this project. Therefore, no adjustment of time is warranted by reason of this change order.

This change order received concurrences from Gary Pursell (Resident Engineer), Rick Morrow (Structure Rep.), Robert Kobal (HQ Liason), Mike Forner for Peter Siegenthaler (Principal Engineer), Michael Gulli (Maintenance), Design of Record, Marwan Nader, P.E. and Ken Terpstra (Project Manager).

This change order will be presented to TBPOC on July 3, 2010 meeting for approval.

CONCURRED BY:		ESTIMATE OF COST	
CONSTRUCTION ENGINEER	DATE	THIS REQUEST	TOTAL TO DATE
Res. Eng. Gary Pursell, Sup. TE	8/11/06		
SR. BRIDGE ENGINEER	DATE	ITEMS	
Rick Morrow, Sup. BE	8/02/06	(\$487,676.00)	(\$487,676.00)
FHWA REPRESENTATIVE	DATE	FORCE ACCOUNT	
		\$950,000.00	\$950,000.00
PROJECT MANAGER	DATE	AGREED PRICE	
Proj. Manager, Ken Terpstra	11/10/09	\$170,485.40	\$170,485.40
OTHER (SPECIFY)	DATE	ADJUSTMENT	
HQ, Robert Kobal	8/16/06	\$899,747.71	\$899,747.71
Design of Record, Marwan Nader	1/31/06	TOTAL	\$1,532,557.11
Maintenance, Michael Gulli	6/28/07		\$1,532,557.11
PCE, Mike Forner for Peter Siegenthaler, Prin TE	8/16/06	FEDERAL PARTICIPATION	
DISTRICT PRIOR APPROVAL BY	DATE	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING	
HQ (ISSUE & APPROVE) (TO PROCEED) BY	DATE	FEDERAL SEGREGATION (IF MORE THAN ONE FUNDING SOURCE OR P.I.P. TYPE) <input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
RESIDENT ENGINEER SIGNATURE	DATE	FEDERAL FUNDING SOURCE	PERCENT
	6/10/10		

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 2/9/2011 Page 1 of 2

TO: Pete Siegenthaler, Prin TE /			FILE: E.A. 04 - 0120F4	
FROM: Kannu Balan, Senior TE			CO-RTE-PM SF-80-13.2/13.9	
			FED. NO.	
CCO#: 24	SUPPLEMENT#: 1	Category Code: CHPK	CONTINGENCY BALANCE (incl. this change) \$171,531,330.81	
COST: \$3,703,527.54 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: Traveler Modifications			PROJECT DESCRIPTION: CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE	
Original Contract Time: 2490 Day(s)	Time Adj. This Change: DEF Day(s)	Previously Approved CCO Time Adjustments: 501 Day(s)	Percentage Time Adjusted: (including this change) 20 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 3

THIS CHANGE ORDER PROVIDES FOR:

1. Redesign of the maintenance traveler system components, providing test track, and performance testing of the travelers. Traveler system changes consist of modifying; trolleys, paint and protective coatings, pneumatics, stair risers, suspension arms, connection welds, and sump buckets, and also providing an anti-skew and dynamic brake system. Testing of two of the travelers will be performed on a test track, prior to shipping and installation.
2. Revising Special Provisions Section 10-1.63 "TRAVELER SCAFFOLDS."
3. Revising Special Provisions Section 10-1.64 "TRAVELER SUPPORT RAILS."

Many of these changes were initially prepared and proposed for incorporation into the contract bid documents as part of Addendum No. 8 on January 31, 2006 and were intended to supplement changes made by Addendum No. 6 which had already been incorporated into the bid documents. The Toll Bridge Project Oversight Committee (TBPOC) subsequently directed that Addendum No. 8 not be issued and that these (and other) changes instead be incorporated into the Contract by change order after Contract Award. This change order incorporates details proposed in the resulting Design Change Request ("CR") Nos. 8 and 13 as well as subsequently identified traveler design clarifications and RFI's.

Reasons for the key element changes in this change order include:

- Motorized and passive trolleys are modified as a result of changes to the braking system.
- The original coating specification of the trolleys is modified to keep the manufacturer recommended coating as it exceeds the Department's requirements. The material and coating specifications for the pneumatic components are clarified to reflect design assumptions and service life requirements. The traveler framing paint requirement is clarified to match the rest of the bridge and the Skyway bridge travelers.
- The pneumatic control system is revised to incorporate the anti-skew system, revised trolley and brake configuration, and elevating platform operational requirements. Component specifications are revised to match components shown on the contract plans.
- Various structural modifications to elements such as stair risers, suspension arms, connection welds, and sump buckets are made to address conflicts and provide safe operation of the traveler.
- Anti-skew devices and dynamic brake systems are required to be added to the travelers to mitigate operational and safety concerns, pursuant to lessons learned on other Toll Bridge contracts.
- The Contractor will build a temporary test track and conduct performance tests to proof test the traveler systems before incorporation into the work.
- Specifications for sliding bearings in the traveler rail supports were relocated in the Special Provisions to clarify that they apply to the traveler rail and not the traveler.

This change order includes resolutions for Contractor Request for Information (RFI) Nos. 226R1, 1050R0, 1066R0, 1112R0, 1112R1, 1598R0, 1599R0, 1713R0, 1763R0, 1918R0, 1944R0, 1946R0, 1950R0, 1953R0, 1955R0, 1968R0, 1969R0, 1970R0, 1971R0, 1972R0, 2117R0, 2123R0, 2126R0, 2127R0, 2140R0, 2151R0, 2155R0, 2164R0, and 2190R0.

The change work is to be paid as an adjustment of compensation at lump sum. Elements of the testing are to be paid as extra work at force account. This supplemental change is estimated to total \$3,703,527.54, which can be financed from the contingency fund. This will result in a cumulative amount of \$5,236,084.65 for CCO 24S0 and 24S1. A detailed cost estimate is on file.

CONTRACT CHANGE ORDER MEMORANDUM

As the travelers are mounted under the bridge, the work will not affect the Seismic Safety Opening of the bridge, but installation and testing of the travelers can potentially impact the early Contract Completion date. Consideration of a time adjustment will be deferred until completion of the work specified herein. Determination of a commensurate time adjustment will be made in accordance with Section 10-1.13, "PROGRESS SCHEDULE (CRITICAL PATH METHOD)" and Section 10-1.14, "TIME-RELATED OVERHEAD" of the Special Provisions, as well as Section 8-1.07, "LIQUIDATED DAMAGES", of the Standard Specifications.

This change order has concurrence from Peter Siegenthaler (Principal Engineer), William Casey (Structure Rep.), Rich Foley (HQ Liaison), Wenyi Long (Design Oversight), Lina Ellis (Maintenance), and Ken Terpstra (Project Manager).

This change order will be presented to the Toll Bridge Program Oversight Committee (TBPOC) in April 2011 for their approval.

The Resident Engineer requests Headquarters CCO Desk "Issue and Approve".

CONCURRED BY:				ESTIMATE OF COST		
Construction Engineer:	PCE, Pete Siegenthaler, Prin TE	Date	9/1/09		THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	Struct Rep, Bill Casey, Sup TE	Date	2/8/11	ITEMS	\$0.00	(\$487,676.00)
Project Engineer:	CT Oversight, Wenyi Long, P.E.	Date	9/1/09	FORCE ACCOUNT	\$1,000,000.00	\$1,950,000.00
Project Manager:	Proj Manager, Ken Terpstra	Date	9/1/09	AGREED PRICE	\$0.00	\$170,485.40
FHWA Rep.:		Date		ADJUSTMENT	\$2,703,527.54	\$3,603,275.25
Environmental:		Date		TOTAL	\$3,703,527.54	\$5,236,084.65
Other (specify):	HQ, Rich Foley	Date	9/1/09	FEDERAL PARTICIPATION		
Other (specify):	Struct. Maint, Lina Ellis	Date	9/9/09	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:		Date		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue .Approve) By:		Date		<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date		FEDERAL FUNDING SOURCE PERCENT _____ _____ _____		

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 3b3
Item- Consent Calendar
Contract Change Orders (CCOs)
Yerba Buena Island Transition Structure 1 CCO No. 513 – Oakland
Detour Eastbound Roadway

Recommendation:
For Information Only

Cost:

CCO 513: Not to Exceed \$2,500,000.00

Schedule Impacts:

None

Discussion:

CCO 513 in an amount not to exceed \$2,500,000 will provide compensation for additional costs associated with constructing the Oakland Detour Eastbound Roadway, per drawings prepared by Caltrans Design. The work includes grading, base rock, AC Paving, drainage pipes, barriers, and associated traffic control to move an approximately 800-meter long portion of Eastbound I-80, as much as 25 meters to the South of its current route.

This change order is part of the overall Oakland Touchdown temporary detour that was approved by the TBPOC on February 3, 2011 at an overall cost of approximately \$51,500,000. The final change order cost falls within the budgeted portion of the total approved amount and is being presented as a follow-up to this approval.

Attachment(s):

1. CCO: 513
2. CCO Memo: 513

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 513	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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To: M C M CONSTRUCTION INC

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. **NOTE: This change order is not effective until approved by the Engineer.**

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Extra Work at Unit Price:

Construct the Oakland Touchdown Detour Eastbound Roadway, per attached drawings (Sheets x through y of this change order) as follows:

X-1 Dated 1/28/11
 L-1 Dated 1/28/11
 L-2 Dated 1/28/11
 L-3 Dated 1/28/11
 PS-1 Dated 1/28/11
 D-1 Dated 2/1/11
 D-2 Dated 2/1/11
 D-3 Dated 2/1/11
 DP-1 Dated 2/1/11
 DP-2 Dated 2/1/11
 DP-3 Dated 2/1/11
 DD-1 Dated 2/1/11
 DD-2 Dated 2/1/11
 DD-3 Dated 2/1/11
 DQ-1 Dated 1/28/11
 DQ-2 Dated 1/28/11
 U-1 Dated 1/28/11
 U-2 Dated 1/28/11
 U-3 Dated 1/28/11
 U-4 Dated 1/28/11
 U-5 Dated 1/28/11
 CS-1 Not dated
 SC-1 Not dated
 SC-2 Not dated
 SCQ-1 Not dated
 PD-1 Dated 1/28/11
 PD-2 Dated 1/28/11
 PD-3 Dated 1/28/11
 PDQ-1 Dated 1/28/11
 S-1 Dated 1/28/11
 Q-1 dated 1/28/11

EXTRA WORK AT AGREED UNIT PRICES

1 Mobilization for this portion of the work 1 LS @\$ 26,027.00 = \$26,027.00

2 Remove concrete barrier (type 60 or 60SC -- does not include type K barriers) 218 M @ \$113.00 = \$ 24,634.00

3 Roadway Excavation 2957M3 @\$58.00 = \$ 171,506.00

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 513	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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- 4 Cold plane AC Pavement 1252 M2 @\$15.00 = \$18,780.00
- 5 Class 3 Aggregate Base 2696 M3 @ \$92.00 =\$248,032.00
- 6 Hot Mix AC (Type A) 4968 Tonne @ \$117.00 = \$ 581,256.00
- 7 Hot Mix AC (Open Grade) 854Tonne @\$160.00 = \$136,640.00
- 8 Sawcut and trim AC for Barrier installation 392 M @ \$ 54.00 = \$ 21,168.00
- 9 Remove Culvert 381M @ \$174.00 = \$ 66,294.00
- 10 Remove Inlet 12 EA @ \$1,638.00 = \$19,656.00
- 11 Minor concrete (minor structure) 16M3 @ \$1,719.00 = \$27,504.00
- 12 Miscellaneous Iron and steel 3108 KG @\$3.00 = \$9,324.00
- 13 450 MM slotted CSP 167 M @\$656.00 = \$109,552.00
- 14 450 MM plastic pipe 343 M @\$301.00 =\$103,243.00
- 15 600 MM plastic pipe 3 M @\$591.00 = \$1,773.00
- 16 Concrete Barrier (Type 60SC) (including reinforcing bar) 390 M @ \$ 594.48 = \$231,847.20
- 17 Crash Cushion Modules 14 Each @\$500.00 = \$7,000.00
- 18 Mainline I-80 Lane Night Closure (Monday through Thursday, 9 hour maximum closure) 32 Each @\$3,300.00 = \$ 105,600.00
- 19 Mainline I-80 Lane Night Closure (Friday, 10.5 hour maximum closure) 8Each @\$ xxx.00 = \$xx.00
- 20 Mainline I-80 Lane Night Closure (Saturday, 10.5 hour maximum closure) 2Each @\$xxx.00 \$ xx.00
- 21 Mainline I-80 Lane Night Closure (Sunday & Holidays, 9 hour maximum closure) 1Each @ \$ xxx.00 \$xx.00

The unit price for excavation includes the cost of hauling and disposal of existing AC and base, and providing a water truck as required for dust control during removal operations. The price also assumes that there is no reinforcing fabric in the existing AC, and excludes the cost of dump fees for the disposal of existing AC that contains reinforcing fabric. The unit price for excavation includes the cost of preparing the subgrade, but excludes the removal, recompaction or replacement of any soft areas encountered.

Any soil to be excavated that is identified as potentially contaminated soil shall be stockpiled by the contractor at a location adjacent to the site. Any further work with such stockpile(s) is excluded from the agreed price. The agreed price excludes the identification, handling, removal or testing of any hazardous or contaminated material, which will be paid for under a separate change order.

The unit price for cold plane AC pavement includes the cost of hauling and disposal of grindings, and providing a water truck as required for dust control during this operation.

The agreed price excludes the cost of dewatering the excavation, or storage, treatment, testing or disposal of any water generated from a dewatering operation.

The agreed price excludes roadway striping, pavement markers, and signs, and electrical, which will be paid for under a separate change order.

CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 513	Suppl. No. 0	Contract No. 04 - 0120S4	Road SF-80-12.7/13.2	FED. AID LOC.: NO FED AID
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The agreed price includes setting the drainage items to finish grade as shown on the drawings, but the agreed price excludes the removal, relocating or replacement of any survey monuments, resetting of manholes or other items to grade.

The agreed unit prices for lane closures include the labor, equipment and materials as required to close one, two or three lanes in one direction (Eastbound or Westbound Interstate 80) as determined by the Engineer.

Access will be maintained at all times to the EBMUD facilities and PG & E facilities that are located at the western end of the maintenance access road.

The agreed price excludes relocating, removing or installation of barrier rails (Type K or other), which will be paid for under a separate change order.

The price excludes the cost of any SWPP measures, such as SWPPP amendments and reports, and appropriate Best Management Practices (BMPs), which will be paid for under a separate change order.

The Contractor shall provide a Critical path method schedule for this change order work, in accordance with SSP 10-1.22 Progress Schedule (Critical Path Method). The schedule shall be updated weekly.

The agreed price excludes quality control and quality assurance costs for the AC mixes.

The agreed prices include all labor, equipment and material as required. The agreed prices constitute full payment, including all markups, for this change.

Estimated cost of Extra Work at Agreed Unit Price\$2,495,000.00

Adjustment of Compensation at Unit Price:

For the Hot Mix Asphalt (type A and Open grade) included above as part of this change order, the compensation payable for asphalt binder used in hot mix asphalt will be increased or decreased in conformance with the provisions of Section 5-1.06, Compensation Adjustments for Price Index Fluctuations of the Special Provisions, for asphalt binder price fluctuations exceeding 10 percent adjustment. The baseline index "Ib" used in this calculation shall be 586.3, which was the California Statewide Paving Asphalt Price Index for the month of March 2011.

Cost of Adjustment of Compensation at Agreed Unit Price\$5,000.00

Total CCO: \$ Not to Exceed 2,500,000.00

Estimated Cost: Increase ☒ Decrease ☐ \$2,500,000.00

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature	Resident Engineer Rajesh Oberoi, Senior R.E.	Date
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Approval Recommended by

Signature	Construction Manager Mike Forner	Date
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Engineer Approval by

Signature	Construction Manager Mike Forner	Date
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We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as may otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature	(Print name and title)	Date
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CONTRACT CHANGE ORDER MEMORANDUM

DATE: 3/18/2011 Page 1 of 2

TO: Deanna Vilcheck, ACM /			FILE: E.A. 04 - 0120S4	
FROM: Rajesh Oberoi, Senior R.E.			CO-RTE-PM SF-80-12.7/13.2	
CCO#: 513 SUPPLEMENT#: 0 Category Code: BZZZ			FED. NO. NO FED AID	
COST: \$2,500,000.00 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			CONTINGENCY BALANCE (incl. this change) \$2,365,300.66	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION: OTDD- EB Roadway			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
			PROJECT DESCRIPTION: YBITS-1 (Yerba Buena Island Transition Structures)	
Original Contract Time: 1390 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 0 Day(s)	Percentage Time Adjusted: (including this change) 0 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 0

THIS CHANGE ORDER PROVIDES FOR:

This change order provides compensation to the contractor for costs to construct the Oakland Touchdown Detour Eastbound Roadway, per drawings prepared by Caltrans Design (Sheets x through y of the change order). The work includes grading, base rock, AC Paving, drainage pipes, barriers, and associated traffic control.

This contract calls for the construction of the Yerba Buena Island Transition structures of the east span of the new San Francisco Oakland Bay Bridge (SFOBB). In a memo dated October 3, 2010, the Deputy Toll Bridge Program Manager recommended to the Toll Bridge Program Oversight Committee (TBPOC) that the Temporary OTD Eastbound Detour be done under Contract Change Orders. This recommendation was approved by the TBPOC in their October 7, 2010 meeting. Subsequently, a Contract Change Order Implementation Strategy for \$51.5 Million was prepared and approved by the TBPOC in their February 3, 2011 meeting.

Compensation for this work shall be paid at agreed unit prices. This CCO provides funding for an estimated cost of Not to exceed \$2,500,000. This will be funded from the budget approved by the TBPOC, as noted above. A cost analysis is on file.

The following items are excluded from the scope of the change order:

The agreed price excludes the identification, handling, removal or testing of any hazardous or contaminated material. The agreed price excludes the cost of dewatering, or storage, treatment, testing or disposal of any water generated from a dewatering operation. These items will be handled either by separate change orders, or by a separate Caltrans on-call environmental services contract. The cost for this disposal has the potential to be up to significant (several hundred thousand dollars, depending on the contaminants encountered).

The agreed price excludes roadway striping, pavement markers, and signs, and resetting of manholes or other items to grade, which will be paid for under a separate change order.

The agreed price excludes electrical work, which will be paid for under a CCO 516, and relocating a changeable message sign, to be paid for under CCO 518.

Access will be maintained at all times to the EBMUD facilities and PG & E facilities that are located at the western end of the maintenance access road.

The agreed price excludes relocating, removing or installation of barrier rails (Type K or other), which will be paid for under a separate change order.

The price excludes the cost of any SWPP measures, such as SWPPP amendments and reports, and appropriate Best Management Practices (BMPs), which will be paid for under CCO 507.

No adjustment of contract time is warranted, as this change will not affect the controlling operation.

This change was requested by Jaime Gutierrez, Branch Chief, Office of Toll Bridge design, on February 1, 2011.

Maintenance concurrence is required as this work will affect permanent roadway features.

CONTRACT CHANGE ORDER MEMORANDUM

EA: 0120S4 CCO: 513 - 0

DATE: 3/18/2011 Page 2 of 2

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	Rajesh Oberoi	Date	ITEMS	THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	Mehran Ardakanian	Date	FORCE ACCOUNT	\$0.00	\$0.00
Project Engineer:		Date	AGREED PRICE	\$0.00	\$0.00
Project Manager:	Ken Terpstra	Date	ADJUSTMENT	\$2,495,000.00	\$2,495,000.00
FHWA Rep.:		Date	TOTAL	\$5,000.00	\$5,000.00
Environmental:	Lina Ellis, Str. Main	Date		\$2,500,000.00	\$2,500,000.00
Other (specify):	Jaime Gutierrez, PE	Date	FEDERAL PARTICIPATION		
Other (specify):	Charles Ho, PE	Date	<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input checked="" type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING		
District Prior Approval By:		Date	FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)		
HQ (Issue Approve) By:	Larry Salhaney	Date	<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS		
Resident Engineer's Signature:		Date	FEDERAL FUNDING SOURCE PERCENT _____ _____ _____		

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Dina Noel, Assistant Deputy Director Toll Bridge Program, CTC

RE: Agenda No. - 3b4
Item- Consent Calendar
Contract Change Orders (CCOs)
Antioch Bridge Seismic Retrofit CCO No. 16-S0 – Concrete Pedestal
Forming Costs

Recommendation:

APPROVAL

Cost:

CCO 16-S0: \$1,249,303.75

Schedule Impacts:

N/A

Discussion:

CCO 16-S0 in the amount \$1,249,303.75 is necessary to compensate the contractor for the use of adjustable steel forms in lieu of the as-planned rigid forms needed in the construction of 80 concrete pedestals to support the new steel cross bracing at Piers 12 through 31. These pedestals are 2-feet wide by 1-foot thick and vary in height from 75 to 140 feet. The change in the forms will accommodate the undulating surface of the existing concrete columns which vary by as much as 4-inches, considered outside of industry standard forming tolerances. Labor and equipment costs associated with installing these forms, including the added work of bolting the form to the existing column, will also be compensated along with labor premium time and inefficiencies associated with mitigating the potential three to four month contract delay.

This change order shall be issued with no contract time extension as a result of this mitigation.

Risk Management:

CCO #16 S0 helps mitigate three to four months of delay and therefore the cost of \$1,249,303 for this CCO was fully covered in the 4th quarter 2010 Risk Register under Risk #139 "Schedule delays in the Construction Phase" which had a 100% probability of costing between \$1- \$9 million. The Risk Management philosophy is to set aside money

Memorandum

to pay for the construction delay or the mitigation of that delay. In the case of Antioch Bridge Retrofit, the Risk Register has set aside \$33,000 for each day of delay and therefore this CCO that mitigates over 3 months of construction delay for less than \$2 million represents a good business decision. This business decision is further reinforced by the fact that this CCO also helps save additional COS costs of \$19,000 per day that are set aside in the COS risk register to cover delay costs.

Attachment(s):

1. Draft CCO: 16-S0
2. Draft CCO Memorandum: 16-S0

**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

CONTRACT CHANGE ORDER NO.: 16 SUPPL. NO. 0

ROAD: 04-CC,Sac-160-0.8/1.3,L0.0/L1.3 SHEET 1 OF 1 SHEETS

CONTRACT NO. 04-1A5214

TO: CALIFORNIA ENGINEERING CONTRACTORS INC. CONTRACTOR.

You are hereby directed to make the herein described changes from the plans and specifications or do the following described work not included in the plans and specifications on this contract.
NOTE: This change order is not effective until approved by the Chief Engineer.

Description of work to be done, estimate of quantities, and prices to be paid. Segregate between additional work at contract price, agreed price and force account. Unless otherwise stated, rates for rental equipment cover only such time as equipment is actually used and no allowance will be made for idle time.
Change requested by: ENGINEER

The last percentage shown is the net accumulated increase or decrease from the original in the Engineer's Estimate.

Adjustment of Compensation at Agreed Lump Sum:

Provide adjustable forms and additional work necessary to construct the reinforced concrete pedestals, which support the W14x211 cross bracing beams at Piers 12 through 31, due to the undulations of the existing concrete columns.

For this work, the Contractor shall receive an agreed lump sum of \$1,249,303.75. This lump sum constitutes full compensation, including all markups for this change.

No additional compensation or contract time extension shall be provided due to interferences with, or penetrating through, existing concrete column reinforcing steel encountered while installing bolt anchors for the concrete pedestal form placement.

Cost of Adjustment of Compensation at Agreed Lump Sum - \$1,249,303.75

Agreed Cost **Decrease \$0.00 Or Increase \$1,249,303.75**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by: _____ Date: _____
William Howe, Senior Resident Engineer

Approval recommended by: _____ Date: _____
Douglas B. Coe, Area Construction Manager

Approved: Chief Engineer by: _____ Date: _____

We, the undersigned contractor, have given careful consideration to the change proposed and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, except as may be otherwise noted above, and perform all services necessary for the work above specified, and will accept as full payment therefore the prices shown above.

Accepted Date: _____ Contractor: California Engineering Contractors Inc.

By: _____ Title: _____

If the contractor does not sign acceptance of this order, his attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time specified.

CONTRACT CHANGE ORDER MEMORANDUM

DATE: 3/4/2011 Page 1 of 2

TO: DOUG COE /			FILE: E.A. 04 - 1A5214	
FROM: WILLIAM HOWE			CO-RTE-PM CC,Sac-160-0.8/1.3,L0.0/L1.3	
FED. NO. NO FED AID				
CCO#: 16	SUPPLEMENT#: 0	Category Code: AXZZ	CONTINGENCY BALANCE (incl. this change) \$2,297,499.50	
COST: \$1,249,303.75 INCREASE <input checked="" type="checkbox"/> DECREASE <input type="checkbox"/>			HEADQUARTERS APPROVAL REQUIRED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00			IS THIS REQUEST IN ACCORDANCE WITH ENVIRONMENTAL DOCUMENTS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
CCO DESCRIPTION:			PROJECT DESCRIPTION: Bridge Seismic Retrofit	
Original Contract Time: 300 Day(s)	Time Adj. This Change: 0 Day(s)	Previously Approved CCO Time Adjustments: 0 Day(s)	Percentage Time Adjusted: (including this change) 0 %	Total # of Unreconciled Deferred Time CCO(s): (including this change) 0

THIS CHANGE ORDER PROVIDES FOR:

additional work and form costs associated with the construction of concrete pedestals and the steel cross bracing being installed at Piers 12 through 31.

This project provides for the seismic retrofit of the Antioch Bridge. As part of the work, the contract calls for steel cross bracing to be installed between the existing concrete columns at Piers 12 through 31. The height of the columns at these 20 piers ranges between 75 to 140 feet in height. Each pier consists of 2 pairs of columns approximately 16 feet apart with each set of columns receiving cross bracing.

The steel cross bracing is attached to the existing concrete columns by vertical reinforced concrete pedestals each 2 feet wide by 1 foot thick. Each pier requires 4 of these pedestals to be constructed, one on each side of the 2 sets of cross bracing, for a total of 80 pedestals. Each pedestal runs the full length of the 75 to 140 foot column height. Field measurements have shown that the face of the existing columns that the concrete pedestals will be constructed against are undulating and vary by as much as 4-inches. This condition exceeds ACI forming tolerances and could not have been reasonably anticipated by the contractor.

As a result of this undulating surface, the contractor will have to furnish and install adjustable column forms in lieu of their planned rigid forms. The forms will allow for the 4-inch variation in the existing column face to be filled by adjusting the edge of the form in or out to match the face.

The use of adjustable forms will result in additional costs associated with constructing the concrete pedestals. These costs include furnishing a more costly set of forms along with labor and equipment costs associated with handling the heavier forms. Extensive costs will also be incurred in having to bolt the forms to the face of the existing column, which was not required with the as-planned rigid forms.

Labor and equipment costs will also be incurred in order to mitigate potential delays associated with this work. A time impact analysis shows as much as 76 days of delay, or roughly 1 day per pedestal, would be incurred due to the required use of the adjustable forms. The contractor will be compensated for labor and equipment inefficiencies and labor premium time costs in order to mitigate this delay, which would be \$30,000 per day (\$20,000 TRO + \$10,000 TRO Plus). The contractor has agreed to no time extension for this change order. A copy of the time impact analysis is on file.

Compensation for this change will be paid as an adjustment of compensation at an agreed lump sum of \$1,249,303.75, which shall be funded by the contract's contingency funds. A cost analysis is on file.

No adjusted of contract time will be provided as the change order acts to mitigate any delay to the controlling operation.

Maintenance concurrence is not required as the change order does not affect any permanent roadway features.

CONTRACT CHANGE ORDER MEMORANDUM

EA: 1A5214 CCO: 16 - 0

DATE: 3/4/2011

Page 2 of 2

CONCURRED BY:			ESTIMATE OF COST		
Construction Engineer:	William Howe	Date	3/4/11	THIS REQUEST	TOTAL TO DATE
Bridge Engineer:	David Tenorio	Date	3/4/11	ITEMS	\$0.00
Project Engineer:		Date		FORCE ACCOUNT	\$0.00
Project Manager:		Date		AGREED PRICE	\$1,249,303.75
FHWA Rep.:		Date		ADJUSTMENT	\$0.00
Environmental:		Date		TOTAL	\$1,249,303.75
Other (specify):		Date		FEDERAL PARTICIPATION	
Other (specify):		Date		<input type="checkbox"/> PARTICIPATING <input type="checkbox"/> PARTICIPATING IN PART <input type="checkbox"/> NONE <input type="checkbox"/> NON-PARTICIPATING (MAINTENANCE) <input type="checkbox"/> NON-PARTICIPATING	
District Prior Approval By:		Date		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)	
HQ (Issue/Approve) By:		Date		<input type="checkbox"/> CCO FUNDED PER CONTRACT <input type="checkbox"/> CCO FUNDED AS FOLLOWS	
Resident Engineer's Signature:		Date		FEDERAL FUNDING SOURCE	PERCENT

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Andrew Fremier, Deputy Director, BATA

RE: Agenda No. - 4a
Progress Reports
Item- Draft 2011 First Quarter Project Progress and Financial Update

Recommendation:
APPROVAL

Cost:
N/A

Schedule Impacts:
N/A

Discussion:
Included in this package is a draft 2011 First Quarter Project Progress and Financial Update. The report has yet to include actual costs and risk management data. TBPOC approval of the final report is requested.

Attachment(s):
Draft 2011 First Quarter Project Progress and Financial Update (see end of binder)



San Francisco Bay Area Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

2011 First Quarter
Project Progress and
Financial Update

DRAFT VERSION 1.0



**TOLL BRIDGE PROGRAM
OVERSIGHT COMMITTEE**

CALTRANS BAY AREA TOLL AUTHORITY CALIFORNIA TRANSPORTATION COMMISSION

Released: May 2011





The New Self-Anchored Suspension Bridge Tower with Fourth Lift Completed Looking East toward Oakland



Toll Bridge Program Oversight Committee
Department of Transportation
Office of the Director
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

February 4, 2010

Mr. Gregory Schmidt
Secretary of the Senate
State Capitol, Room 3044
Sacramento, CA 95814

Mr. E. Dotson Wilson
Chief Clerk of the Assembly
State Capitol, Room 3196
Sacramento, CA 95814

Dear Messrs. Schmidt and Wilson:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2010 Fourth Quarter Toll Bridge Seismic Retrofit Program Report, prepared pursuant to California Streets and Highways Code Section 30952.

The TBPOC is tasked to perform project oversight and control over the Toll Bridge Seismic Retrofit Program (TBSRP) and is comprised of the Director of the Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission (CTC). This fourth quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through December 31, 2010.

Significant progress continues to be made on the San Francisco-Oakland Bay Bridge East Span Replacement Project, including the arrival in December 2010 and installation in January 2011 of the 19th and 20th steel roadway boxes and the third lift of steel tower boxes for the Self-Anchored Suspension Span (SAS). Our next shipment is scheduled to arrive in February 2011. While each installed segment represents a major step forward, we continue to be mindful of the challenges that remain and of our goal to open the new bridge to traffic as soon as possible.

Towards those ends, we have put in place incentives and disincentives to accelerate the completion of the bridge, including an allowance for a "seismic safety opening" of the bridge to traffic as soon as possible before non-essential systems like architectural lighting or removal of unneeded temporary support structures are completed. With this allowance, we will maintain our goal of getting traffic onto the new bridge by the end of 2013.

Furthermore, we are implementing an acceleration option to complete the eastbound Oakland touchdown structure that currently is in conflict with the existing bridge. This option will require temporary lane realignments and widening of the eastern end of the existing bridge in Oakland and will allow for both eastbound and westbound directions of the new bridge to open to traffic when the self-anchored suspension bridge is ready.

Seismic retrofit work on the Dumbarton and Antioch bridges is also ongoing. On the Antioch Bridge, new seismic isolation bearings are now being installed to give the bridge more flexibility during an earthquake and new steel cross bracing is being fabricated and delivered to the job site. On the Dumbarton Bridge, 48-inch diameter steel piles are being driven into the ground along the eastern approach to the bridge.

As of the end of the fourth quarter of 2010, the 50 percent probable draw on the remaining \$415 million program contingency is \$218 million. The potential draw ranges from about \$20 million to \$280 million. The current program contingency balance is sufficient to cover the cost of currently identified risks. Risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.

Sincerely,

STEVE HEMINGER
TBPOC Chair
Executive Director
Bay Area Toll Authority

BIMLA G. RHINEHART
TBPOC Vice-Chair
Executive Director
California Transportation
Commission

CINDY McKIM
Director
California Department of Transportation



Toll Bridge Program Oversight Committee
Department of Transportation
Office of the Director
1120 N Street
P.O. Box 942873
Sacramento, CA 94273-0001

February 4, 2010

Mr. James Earp, Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Mr. Dario Frommer, Vice-Chair
California Transportation Commission
1120 N Street, Room 2221
Sacramento, CA 95814

Dear Messrs. Earp and Frommer:

The Toll Bridge Program Oversight Committee (TBPOC) is pleased to submit the 2010 Fourth Quarter Toll Bridge Seismic Retrofit Program Report, prepared pursuant to California Streets and Highways Code Section 30952.

The TBPOC is tasked to perform project oversight and control over the Toll Bridge Seismic Retrofit Program (TBSRP) and is comprised of the Director of the Department of Transportation (Caltrans), the Executive Director of the Bay Area Toll Authority (BATA), and the Executive Director of the California Transportation Commission (CTC). This fourth quarter report includes project progress and activities for the Toll Bridge Seismic Retrofit Program through December 31, 2010.

Significant progress continues to be made on the San Francisco-Oakland Bay Bridge East Span Replacement Project, including the arrival in December 2010 and installation in January 2011 of the 19th and 20th steel roadway boxes and the third lift of steel tower boxes for the Self-Anchored Suspension Span (SAS). Our next shipment is scheduled to arrive in February 2011. While each installed segment represents a major step forward, we continue to be mindful of the challenges that remain and of our goal to open the new bridge to traffic as soon as possible.

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Furthermore, we are implementing an acceleration option to complete the eastbound Oakland touchdown structure that currently is in conflict with the existing bridge. This option will require temporary lane realignments and widening of the eastern end of the existing bridge in Oakland and will allow for both eastbound and westbound directions of the new bridge to open to traffic when the self-anchored suspension bridge is ready.

Seismic retrofit work on the Dumbarton and Antioch bridges is also ongoing. On the Antioch Bridge, new seismic isolation bearings are now being installed to give the bridge more flexibility during an earthquake and new steel cross bracing is being fabricated and delivered to the job site. On the Dumbarton Bridge, 48-inch diameter steel piles are being driven into the ground along the eastern approach to the bridge.

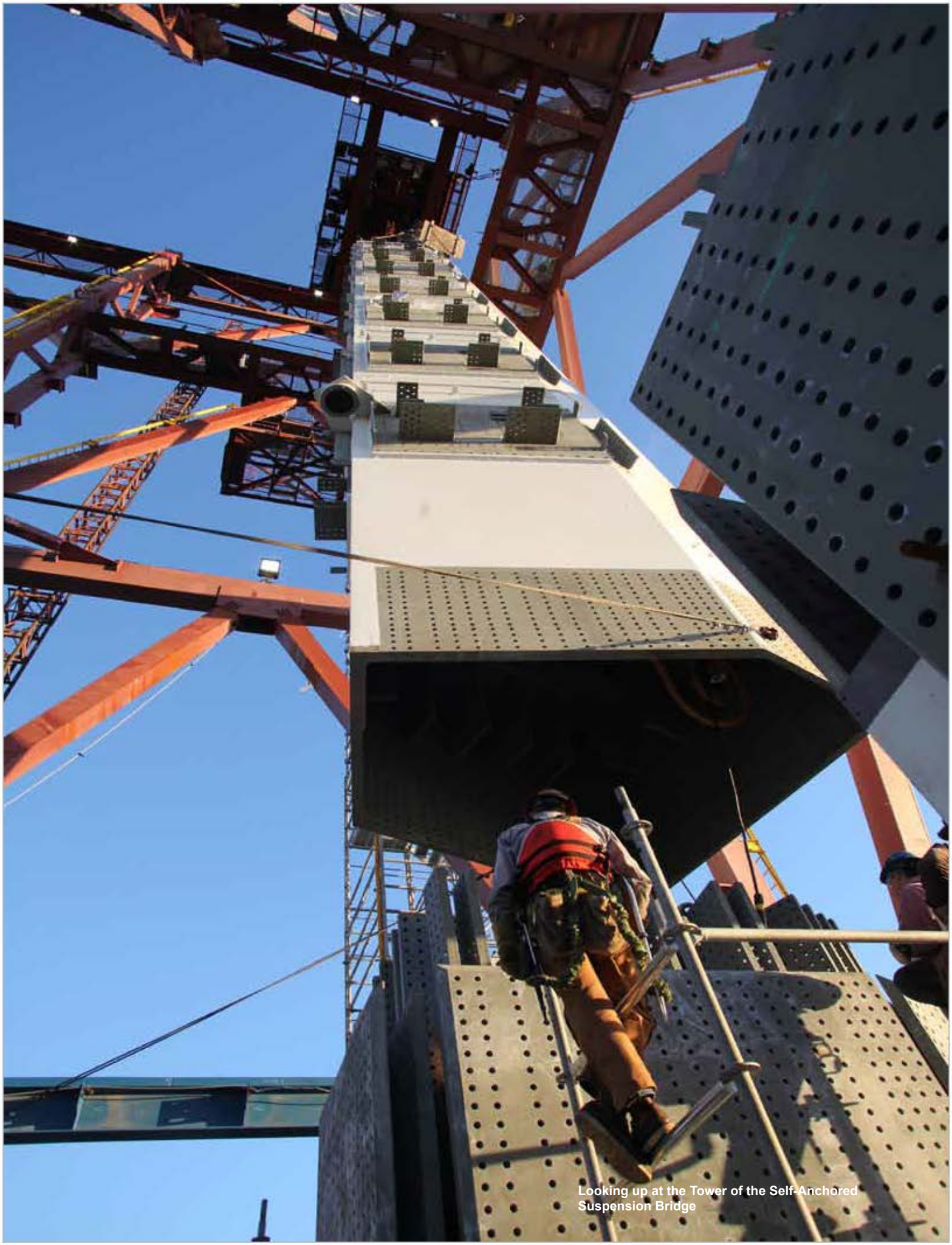
As of the end of the fourth quarter of 2010, the 50 percent probable draw on the remaining \$415 million program contingency is \$218 million. The potential draw ranges from about \$20 million to \$280 million. The current program contingency balance is sufficient to cover the cost of currently identified risks. Risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

The TBPOC is committed to providing the Legislature with comprehensive and timely reporting on the TBSRP. If there are any questions, or if any additional information is required, please do not hesitate to contact the members of the TBPOC.
Sincerely,

STEVE HEMINGER
TBPOC Chair
Executive Director
Bay Area Toll Authority

BIMLA G. RHINEHART
TBPOC Vice-Chair
Executive Director
California Transportation
Commission

CINDY McKIM
Director
California Department of Transportation



Looking up at the Tower of the Self-Anchored Suspension Bridge

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Introduction

In July 2005, Assembly Bill (AB) 144 (Hancock) created the Toll Bridge Program Oversight Committee (TBPOC) to implement a project oversight and project control process for the new Benicia-Martinez Bridge and State Toll Bridge Seismic Retrofit Program projects. The TBPOC consists of the Director of Caltrans, the Executive Director of the Bay Area Toll Authority (BATA) and the Executive Director of the California Transportation Commission (CTC). The TBPOC's project oversight and control processes include, but are not limited to, reviewing bid specifications and documents, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the Committee), and keeping the Legislature and others of current project progress and status. In January 2010, Assembly Bill (AB) 1175 (Torlakson) amended the TBSRP to include the Antioch and Dumbarton Bridges seismic retrofit projects. The current Toll Bridge Seismic Retrofit Program is as follows:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
Dumbarton Bridge Seismic Retrofit	Construction
Antioch Bridge Seismic Retrofit	Construction
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Complete
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
1958 Carquinez Bridge Seismic Retrofit	Complete
1962 Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The New Benicia-Martinez Bridge is part of a larger program of toll-funded projects called the Regional Measure 1 (RM1) Toll Bridge Program under the responsibility of BATA and Caltrans. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans will continue to report on their progress as an informational item. The RM1 program includes:

Regional Measure 1 Projects	Open to Traffic Status
Interstate 880/State Route 92 Interchange Reconstruction	Construction
1962 Benicia-Martinez Bridge Reconstruction	Open
New Benicia-Martinez Bridge	Open
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Open
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Roadway Box 11 Being Transported from Pier 7 in Oakland to the Shear-Leg Barge Crane for Placement



Aerial View of Roadway Box 11 Westbound Being Lifted into Place by the Shear-Leg Barge Crane



Aerial View of the Four Legs of Tower Lift Four Installed

Toll Bridge Seismic Retrofit Program Risk Management

A major element of the 2005 AB144, the law creating the TBPOC, was legislative direction to implement a more aggressive risk management program. Such a program has been implemented in stages over time to ensure development of a robust and comprehensive approach to risk management.

A comprehensive risk assessment is performed for each project in the program on a quarterly basis. Based upon those assessments, a forecast is developed using the average cost of risk. These forecasts can both increase and decrease as risks are identified, resolved or retired. Nonetheless, assurances have been made that the public is informed of the risks that have been identified and the possible expense they could necessitate.

As of the end of the fourth quarter of 2010, the 50 percent probable draw on the current \$415 million budgeted program contingency is \$218 million. The potential draw ranges from \$20 million to \$280 million. The current program contingency balance is sufficient to cover the cost of currently identified risks. Risk mitigation actions are continuously developed and implemented to reduce the potential draw on the program contingency.

San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Replacement Project SAS Superstructure Contract

The prime contractor constructing the Self-Anchored Suspension (SAS) Bridge from the completed Skyway to Yerba Buena Island is a joint venture of American Bridge/Fluor (ABF). Significant progress is being made both in the Bay Area and around the world.

As of the end of March 2011, the first 22 of 28 steel roadway boxes and the all legs of the fourth lift of the tower were installed. The three remaining roadway boxes are in fabrication. Roadway boxes 12 east and west will ship in May 2011 and roadway boxes 13 and 14 east and west will ship in July 2011.

These boxes, fabricated in Shanghai, China, join other bridge components that have been arriving from around the country and the world. All bridge components undergo a rigorous quality review by the fabricator, ABF, and Caltrans to ensure that only bridge components that have been built in accordance to the specifications will be shipped.



San Francisco-Oakland Bay Bridge Detour Structure Completed over the Labor Day Weekend 2009

In September 2010, the TBPOC negotiated a change to the contract with the contractor to address past challenges, mitigate delays, and to accelerate the remaining work through incentives and disincentives. The goal now is opening the bridge to traffic by December 2013. The change agreed to is a “seismic safety opening” of the bridge to traffic before non-essential systems, like architectural lighting or removal of unneeded temporary support structures, are completed.

Yerba Buena Island Detour Contract

The YBI temporary detour structure contract was completed in October 2010.

Yerba Buena Island Transition Structures #1 Contract

The YBITS#1 contract has been awarded to MCM Construction, Inc., the same contractor that completed the Oakland Touchdown (OTD) #1 contract. MCM mobilized in September 2010, and has had total access to the area since October 1, 2010. The MCM contract includes completing the remaining foundations and the bridge deck structure from the Yerba Buena Island Tunnel to the self-anchored suspension bridge.

The TBPOC has negotiated an acceleration change order with the YBITS #1 contractor to ensure a simultaneous eastbound and westbound opening of the bridge by December 2013. BATA was requested to fund the acceleration plan from the program contingency in March 2011.



YBITS #1 Westbound Falsework and Framework Progress

SUMMARY OF MAJOR PROJECT HIGHLIGHTS, ISSUES, AND ACTIONS



Oakland Detour North Abutment Formwork



Oakland Detour - Burma Road Paved



Forms Installed to Upper Chord at Pier 30 of Antioch Bridge

Oakland Touchdown #1 Contract

The Oakland Touchdown (OTD) #1 contractor, MCM Construction completed the work on June 8, 2010. The contract constructed the westbound approach from the toll plaza to the Skyway structure and the portion of the eastbound approach that is not in conflict with the existing bridge structure.

Oakland Detour Construction

To ensure a simultaneous eastbound and westbound opening of the bridge by December 2013, the TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. The detour realigns the bridge approach to the south to allow for construction of the remaining portion of OTD#2 that was in conflict with the existing bridge. BATA funded the detour and acceleration plan from the program contingency in March 2011. The eastbound detour is forecast to be completed by the end of May 2011 and the westbound detour at the end of 2011. A full closure of the bridge is not expected at this time.

Oakland Touchdown #2 Contract

The OTD #2 contract for construction will be advertised in October 2011 and awarded in April 2012.

Antioch Bridge Seismic Retrofit

The major retrofit strategy for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents and installing steel casings at all columns located at the Sherman Island approach slab bridge. See project progress on page 32.

Dumbarton Bridge Seismic Retrofit

The Dumbarton bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast - prestressed concrete girders, and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings. See project progress on page 34.



Antioch Bridge - Installation of Seismic Monitoring Conduit along Height of Column Bent at Pier 22



Antioch Bridge - Restrainer Bracket at Pier 5



92/880 NWCONN Bridge Construction

TBSRP Capital Outlay Support

The capital outlay support (COS) budget, originally established as a part of AB 144 in 2005, was based on a schedule that assumed bridge opening in 2012. After the SAS contract was rebid, interested contractors requested an additional year to be added to the schedule. To ensure a competitive bidding pool, the TBPOC changed the approved schedule to reflect bridge opening in 2013, but delayed increasing the COS budget to cover the project extension with the belief that an accelerated early completion was still possible and that COS costs could be contained. Since that time, early completion has not materialized and the TBPOC has subsequently approved COS budget increases to be funded from the COS reserves set aside within the original program contingency for project extensions or delays. Opportunities to economize and reduce costs in this area will continue to be pursued. However, additional COS is forecast to be needed from the program contingency.

TBSRP Programmatic Risks

This category includes risks that are not yet scoped within existing contracts and/or that spread across multiple contracts. The interdependencies between all of the contracts in the program result in the potential for one contract's delay to impact the entire program that are accounted for in the net programmatic risks.

Regional Measure 1 Toll Bridge Program (RM1)

Interstate 880/State Route 92 Interchange Reconstruction Project

The project is forecast to be substantially completed in September 2011, pending weather or unforeseen construction delays.

Toll Bridge Seismic Retrofit Program Cost Summary

	Contract Status	AB 144/SB 66 Budget (July 2005)	TBPOC Approved Changes	Current TBPOC Approved Budget (March 2011)	Cost to Date (February 2011)	Current Cost Forecast (March 2011)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
SFOBB East Span Seismic Replacement								
Capital Outlay Construction								
Skyway	Completed	1,293.0	(38.9)	1,254.1	1,237.0	1,254.1	-	●
SAS Marine Foundations	Completed	313.5	(32.6)	280.9	274.8	280.9	-	●
SAS Superstructure	Construction	1,753.7	293.1	2,046.8	1,415.5	2,074.7	27.9	●
YBI Detour	Completed	131.9	360.9	492.8	459.2	488.8	(4.0)	●
YBI Transition Structures (YBITS)		299.3	(93.0)	206.3	21.1	253.1	46.8	●
YBITS 1	Construction			144.0	21.1	185.4	41.4	●
YBITS 2	Design			59.0	-	64.4	5.4	●
YBITS Landscaping	Design			3.3	-	3.3	-	●
Oakland Touchdown (OTD)		283.8	4.2	288.0	210.0	335.3	47.3	●
OTD 1	Completed			212.0	202.2	204.4	(7.6)	●
OTD 2	Design			62.0	-	65.9	3.9	●
Detour	Construction			-	-	51.0		●
OTD Electrical Systems	Design			4.4	-	4.4	-	●
Submerged Electric Cable	Completed			9.6	7.9	9.6	-	●
Existing Bridge Demolition	Design	239.2	(0.1)	239.1	-	233.0	(6.1)	●
Stormwater Treatment Measures	Completed	15.0	3.3	18.3	16.7	18.3	-	●
Other Completed Contracts	Completed	90.4	(0.1)	90.3	89.9	90.4	0.1	●
Capital Outlay Support		959.3	203.0	1,162.3	930.0	1,284.2	121.9	●
Right-of-Way and Environmental Mitigation		72.4	-	72.4	51.3	80.4	8.0	●
Other Budgeted Capital		35.1	(3.3)	31.8	0.7	7.7	(24.1)	●
Total SFOBB East Span Replacement		5,486.6	696.5	6,183.1	4,706.2	6,400.9	217.8	●
Antioch Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		70.0	70.0	15.0	62.0	(8.0)	●
Capital Outlay Support			31.0	31.0	18.3	35.7	4.7	●
Total Antioch Bridge Seismic Retrofit		-	101.0	101.0	33.3	97.7	(3.3)	●
Dumbarton Bridge Seismic Retrofit								
Capital Outlay Construction and Mitigation	Construction		92.7	92.7	8.4	96.8	4.1	●
Capital Outlay Support			56.0	56.0	24.6	55.7	(0.3)	●
Total Dumbarton Bridge Seismic Retrofit		-	148.7	148.7	33.0	152.5	3.8	●
Other Program Projects		2,268.4	(64.6)	2,203.8	2,159.3	2,191.7	(12.1)	●
Miscellaneous Program Costs		30.0	-	30.0	25.5	30.0	-	●
Net Programmatic Risks		-	-	-	-	11.8	11.8	●
Program Contingency		900.0	(484.6)	415.4	-	197.4	(218.0)	●
Total Toll Bridge Seismic Retrofit Program²		8,685.0	397.0	9,082.0	6,957.3	9,082.0	-	●

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ² Figures may not sum up to totals due to rounding effects.

Toll Bridge Seismic Retrofit Program Schedule Summary

	AB144/SB 66 Project Completion Schedule Baseline (July 2005)	TBPOC Approved Changes (Months)	Current TBPOC Approved Completion Schedule (March 2011)	Current Completion Forecast (March 2011)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
SFOBB East Span Seismic Replacement							
Contract Completion							
Skyway	Apr 2007	8	Dec 2007	Dec 2007	-	●	See Page 28
SAS Marine Foundations	Jun 2008	(5)	Jan 2008	Jan 2008	-	●	See Page 18
SAS Superstructure	Mar 2012	29	Aug 2014	Aug 2014	-	●	See Page 19
YBI Detour	Jul 2007	41	Dec 2010	Oct 2010	(2)	●	See Page 15
YBI Transition Structures (YBITS)	Nov 2013	12	Nov 2014	Mar 2015	4		See Page 16
YBITS 1			Sep 2013	Dec 2013	3	●	
YBITS 2			Nov 2014	Mar 2015	4	●	
YBITS Landscaping			TBD	TBD	-	●	
Oakland Touchdown	Nov 2013	12	Nov 2014	Nov 2014	-		See Page 29
OTD 1			Jun 2010	Jun 2010	-	●	
OTD 2			Nov 2014	Nov 2014	-	●	
OTD Electrical Systems			TBD	TBD	-	●	
Submerged Electric Cable			Jan 2008	Jan 2008	-	●	
Existing Bridge Demolition	Sep 2014	12	Sep 2015	Dec 2015	3	●	
Stormwater Treatment Measures	Mar 2008	-	Mar 2008	Mar 2008	-	●	
SFOBB East Span Bridge Opening and Other Milestones							
OTD Westbound Access			Aug 2009	Aug 2009	-	●	
YBI Detour Open			Sep 2009	Sep 2009	-	●	See Page 15
Westbound Open	Sep 2011	26	Dec 2013	Dec 2013	-	●	
Eastbound Open	Sep 2012	14	Dec 2013	Dec 2013	-	●	
Antioch Bridge Seismic Retrofit							
Contract Completion			Aug 2012	May 2012	(3)	●	See Page 32
Dumbarton Bridge Seismic Retrofit							
Contract Completion			Sep 2013	Sep 2013	-	●	See Page 34

Regional Measure 1 Program Cost Summary

	Contract Status	BATA Baseline Budget (July 2005)	BATA Approved Changes	Current BATA Approved Budget (March 2011)	Cost to Date (February 2011)	Current Cost Forecast (March 2011)	Cost Variance	Cost Status
		a	b	c = a + b	d	e	f = e - c	
Interstate 880/Route 92 Interchange Reconstruction								
Capital Outlay Construction	Construction	94.8	66.2	161.0	118.5	161.0	-	●
Capital Outlay Support		28.8	34.6	63.4	57.8	63.4	-	●
Capital Outlay Right-of-Way		9.9	7.0	16.9	12.4	16.9	-	●
Project Reserve		0.3	3.4	3.7	-	3.7	-	
Total I-880/SR-92 Interchange Reconstruction		133.8	111.2	245.0	188.7	245.0	-	
Other Completed Program Projects		1,978.8	182.6	2,161.4	2,089.7	2,161.4	-	
Total Regional Measure 1 Toll Bridge Program¹		2,112.6	293.8	2,406.4	2,278.4	2,406.4	-	

- Within approved schedule and budget
 - Identified potential project risks that could significantly impact approved schedules and budgets if not mitigated
 - Known project impacts with forthcoming changes to approved schedules and budgets
- ¹ Figures may not sum up to totals due to rounding effects.

Regional Measure 1 Program Schedule Summary

	BATA Baseline Completion Schedule (July 2005)	BATA Approved Changes (Months)	Current BATA Approved Completion Schedule (March 2011)	Current Completion Forecast (March 2011)	Schedule Variance (Months)	Schedule Status	Remarks/Notes
	g	h	i = g + h	j	k = j - i	l	
Interstate 880/Route 92 Interchange Reconstruction							
Contract Completion							
Interchange Reconstruction	Dec 2010	9	Jun 2011	Sep 2011	3	●	See Page 40





Self-Anchored Suspension Bridge - First Leg of Tower Lift Four

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge Seismic Retrofit Strategy

When a 250-ton section of the upper deck of the East Span collapsed during the 7.1-magnitude Loma Prieta Earthquake in 1989, it was a wake-up call for the entire Bay Area. While the East Span quickly reopened within a month, critical questions lingered: How could the Bay Bridge—a vital regional lifeline structure—be strengthened to withstand the next major earthquake? Seismic experts from around the world determined that to make each separate element seismically safe on a bridge of this size, the work must be divided into numerous projects. Each project presents unique challenges. Yet there is one common challenge — the need to accommodate the more than 280,000 vehicles that cross the bridge each day.



West Approach Overview

West Approach Seismic Replacement Project

Project Status: Completed 2009

Seismic safety retrofit work on the West Approach in San Francisco, bounded on the west by 5th Street and on the east by the anchorage of the west span at Beale Street, involved completely removing and replacing this one-mile stretch of Interstate 80, as well as six on- and off-ramps within the confines of the West Approach's original footprint. This project was completed on April 8, 2009.

West Span Seismic Retrofit Project

Project Status: Completed 2004

The West Span lies between Yerba Buena Island and San Francisco and is made up of two complete suspension spans connected at a center anchorage. Retrofit work included adding massive amounts of steel and concrete to strengthen the entire West Span, along with new seismic shock absorbers and bracing.



San Francisco-Oakland Bay Bridge West Span



East Span Seismic Replacement Project

Project Status: **Construction**

Rather than a seismic retrofit, the two-mile long East Span is being completely rebuilt. When completed, the new East Span will consist of several different sections, but will appear as a single streamlined span. The eastbound and westbound lanes of the East Span will no longer include upper and lower decks. The lanes will instead be parallel, providing motorists with expansive views of the bay. These views will also be enjoyed by bicyclists and pedestrians, thanks to a new bike path on the south side of the bridge that will extend all the way to Yerba Buena Island. The new span will be aligned north of the existing bridge to allow traffic to continue to flow on the existing bridge as crews build the new span.

The new span will feature the world's longest Self-Anchored Suspension (SAS) bridge that will be connected to an elegant roadway supported by piers (Skyway), which will gradually slope down toward the Oakland shoreline (Oakland Touchdown). A new transition structure on Yerba Buena Island (YBI) will connect the SAS to the YBI Tunnel and will transition the East Span's side-by-side traffic to the upper and lower decks of the tunnel and West Span.

When construction of the new East Span is complete and vehicles have been safely rerouted to it, the original East Span will be demolished.



Architectural Rendering of the New East Span of the San Francisco-Oakland Bay Bridge

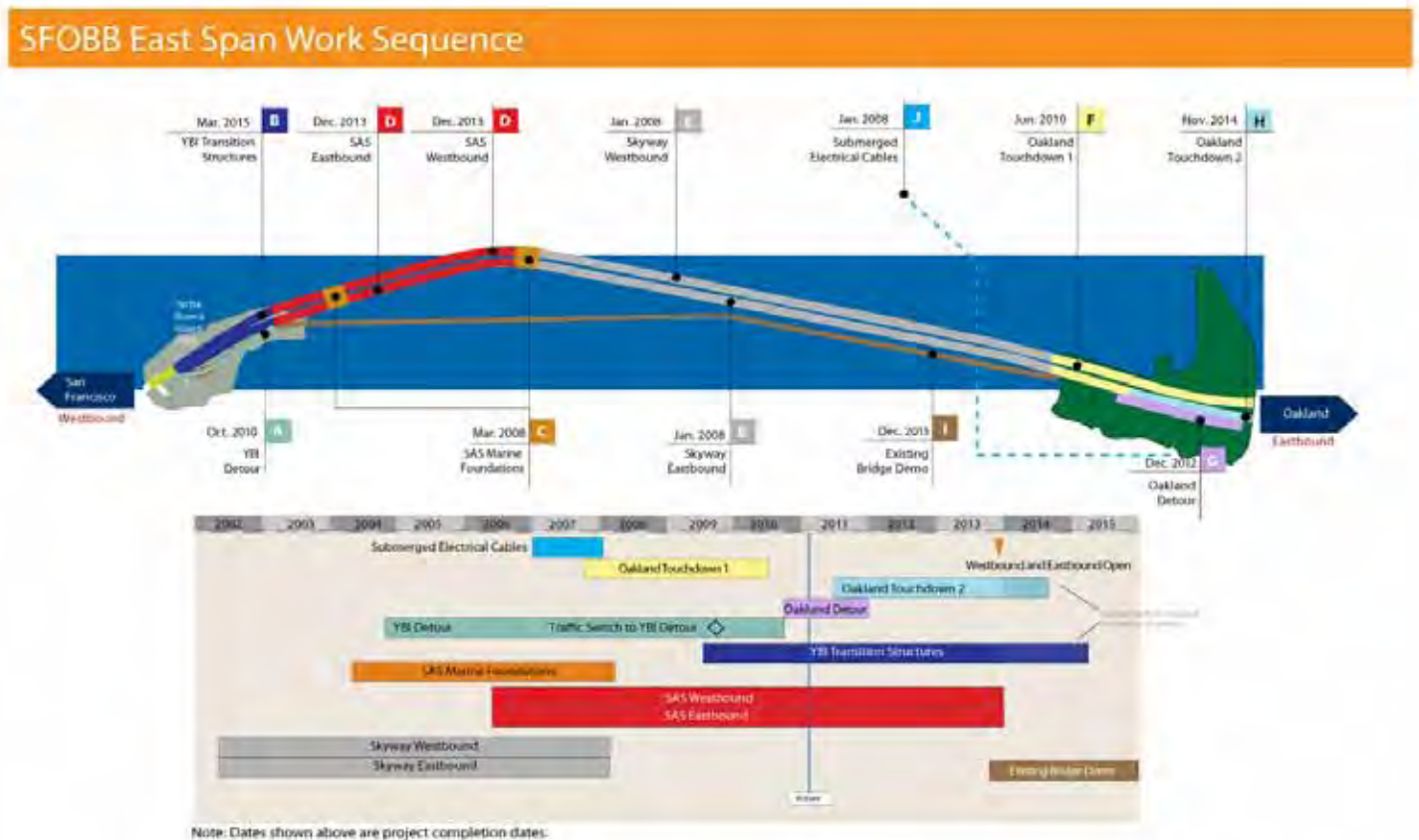


TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Summary

The new East Span bridge can be split into four major components—the Skyway and the Self-Anchored Suspension bridge in the middle and the Yerba Buena Island Transition Structures and Oakland Touchdown approaches at either end. Each component is being constructed by one to three separate contracts that have been sequenced together to reduce schedule risk.

Highlighted below are the major East Span contracts and their schedules. The letter designation before each contract corresponds to contract descriptions in the report.



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Detour (YBID)

As with all of the Bay Bridge's seismic retrofit projects, crews must build the Yerba Buena Island Transition Structures (YBITS) without disrupting traffic. To accomplish this task, YBID eastbound and westbound traffic was shifted off the existing roadway and onto a temporary detour on Labor Day weekend 2009. Drivers will use this detour, just south of the original roadway, until traffic is moved onto the new East Span.

A YBID Contract

Contractor: C.C. Myers, Inc.

Approved Capital Outlay Budget: \$492.8 M

Status: Completed October 2010

This contract was originally awarded in early 2004 to construct the detour structure for the planned 2006 opening of the new East Span. Due to the re-advertisement of the SAS superstructure contract in 2005 because of a lack of funding at the time, the bridge opening was rescheduled to 2013. To better integrate the contract into the current East Span schedule and to improve seismic safety and mitigate future construction risks, the TBPOC has approved a number of changes to the contract, including adding the deck replacement work near the tunnel that was rolled into place over Labor Day weekend 2007, advancing future transition structure foundation work and making design enhancements to the temporary detour structure. These changes have increased the budget and forecast for the contract to cover the revised project scope and reduce project risks.

Status: Completed.



YBI East Tie-In Rolled in on Labor Day 2009 Weekend



West Tie-In Phase #1 Rolled in on Labor Day Weekend 2007



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Yerba Buena Island Transition Structures (YBITS)

The new Yerba Buena Island Transition Structures (YBITS) will connect the new SAS bridge span to the existing Yerba Buena Island Tunnel, transitioning the new side-by-side roadway decks to the upper and lower decks of the tunnel. The new structures will be cast-in-place reinforced concrete structures that will look very similar to the already constructed Skyway structures. While some YBITS foundations and columns have been advanced by the YBID contract, the remaining work will be completed under three separate YBITS contracts.

B YBITS #1 Contract

Contractor: MCM Construction, Inc.

Approved Capital Outlay Budget: \$144.0 M

Status: 20% Complete as of March 2011



YBITS #1 Westbound Frame 2 Falsework

The YBITS #1 contract will construct the mainline roadway structures from the SAS bridge to the YBI tunnel. On February 4, 2010, Caltrans awarded the YBITS #1 Contract to MCM Construction, Inc.

Status: Construction continues on the installation of the access trestle eastbound and westbound footings and columns. The TBPOC negotiated an acceleration change order with the YBITS #1 contractor to ensure a simultaneous eastbound and westbound opening of the bridge by December 2013. BATA is funding the acceleration plan from the program contingency.



Rendering of Overview of Future Yerba Buena Island Transition Structures in Progress (top) with Completed Detour Viaduct (bottom)



YBITS #2 Contract

Contractor: TBD

Approved Capital Outlay Budget: \$59.0 M

Status: **In Design**

The YBITS #2 contract will demolish the detour viaduct after all traffic is shifted to the new bridge and will construct a new eastbound on-ramp to the bridge in its place. The new ramp will also provide the final link for bicycle/pedestrian access off the SAS bridge onto Yerba Buena Island.

YBITS Landscaping Contract

Contractor: TBD

Approved Capital Outlay Budget \$3.3M

Status: **In Design**

Upon completion of the YBITS work, a follow-on landscaping contract will be executed to re-plant and landscape the area.

Yerba Buena Island Transition Structures Advanced Work

Due to the re-advertisement of the SAS superstructure contract in 2005, it became necessary to temporarily suspend the detour contract and make design changes to the viaduct. To make more effective use of the extended contract duration and to reduce overall project schedule and construction risks, the TBPOC approved the advancement of foundation and column work from the Yerba Buena Island Transition Structures contract.

Status: The YBID contractor completed the YBITS advanced substructure work in October 2010.



Yerba Buena Island Transition Structures #1 Falsework and Form Work in Progress on right and Yerba Buena Island Detour on the left Looking West

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Self-Anchored Suspension (SAS) Bridge

If one single element bestows world class status on the new Bay Bridge East Span, it is the Self-Anchored Suspension (SAS) bridge. This engineering marvel will be the world's largest SAS span at 2,047 feet in length, as well as the first bridge of its kind built with a single tower.

The SAS was separated into three separate contracts— construction of the land-based foundations and columns at Pier W2; construction of the marine-based foundations and columns at Piers T1 and E2; and construction of the SAS steel superstructure, including the tower, roadway, and cabling. Construction of the foundations at Pier W2 and at Piers T1 and E2 was completed in 2004 and 2007, respectively.



Tower Lift 4 Leg 2 Being Erected

SAS Land Foundation Contract

Contractor: West Bay Builders, Inc.

Approved Capital Outlay Budget: \$26.4 M

Status: Completed October 2004

The twin W2 columns on Yerba Buena Island provide essential support for the western end of the SAS bridge, where the single main cable for the suspension span will extend down from the tower and wrap around and under the western end of the roadway deck. Each of these huge columns required massive amounts of concrete and steel and are anchored 80 feet into the island's solid bedrock.

C SAS Marine Foundations Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$280.9 M

Status: Completed January 2008

Construction of the piers at E2 and T1 required significant on-water resources to drive the foundation support piles down, not only to bedrock, but also through the bay water and mud (see rendering on facing page).

The T1 foundation piles extend 196 feet below the waterline and are anchored into bedrock with heavily reinforced concrete rock sockets that are drilled into the rock. Driven nearly 340 feet deep, the steel and concrete E2 foundation piles were driven 100 feet deeper than the deepest timber piles of the existing east span in order to get through the bay mud and reach solid bedrock.



D SAS Superstructure Contract

Contractor: American Bridge/Fluor Enterprises, Joint Venture

Approved Capital Outlay Budget: \$2.05 B

Status: 68% Complete as of March 2011

The SAS bridge is not just another suspension bridge. Rising 525 feet above mean sea level and embedded in rock, the single-tower SAS span is designed to withstand a massive earthquake. Traditional main cable suspension bridges have twin cables with smaller suspender cables connected to them. While there will appear to be two main cables on the SAS, there will actually only be one. This single cable will be anchored within the eastern end of the roadway, carried over the tower and then wrapped around the two side-by-side decks at the western end. The single-steel tower will be made up of four separate legs connected by shear link beams which function

much like a fuse in an electrical circuit. These beams will absorb most of the impact from an earthquake, preventing damage to the tower legs.

The next several pages highlight the construction sequence of the SAS and are followed by detailed updates on specific construction activities.



Architectural Rendering of New Self-Anchored Suspension Span and Skyway



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Construction Sequence

STEP 1 - CONSTRUCT TEMPORARY SUPPORT STRUCTURES

Temporary support structures will need to be erected from the Skyway to Yerba Buena Island to support the new SAS bridge during construction.

Status: Foundations and temporary support structures were completed in mid-September 2010.

STEP 2 - INSTALL ROADWAYS

The roadway boxes are being lifted into place by using the shear-leg crane barge. The boxes are being bolted and welded together atop the temporary support trusses to form two continuous parallel steel roadway boxes.

Status: Roadway boxes 11 east and west arrived in Oakland on February 14, 2011. Roadway boxes 11 east and west have been lifted into position. Fifteen crossbeams have been erected between the roadway boxes. Roadway boxes 12 east and west are in fabrication and are forecast for shipment in May 2011. Roadway boxes 13 and 14 east and west are in fabrication and are expected to ship in July 2011.

STEP 3 - INSTALL TOWER

Each of the four legs of the tower will be erected in five separate lifts. The four tower lifts, the grillage and the tower head will be installed using a temporary erection tower and lifting jacks.

Status: The fourth and fifth tower lifts arrived in Oakland on February 14, 2011 and tower lift four has been erected. The fifth lift (the tower grillage) is scheduled for installation in April 2011.



Step 1



Step 2



Step 3



STEP 4 - MAIN CABLE AND SUSPENDER INSTALLATION

The main cable will be pulled from the east end of the SAS bridge, over the tower, and wrapped around Pier W2 and again back over the tower and to the west end of the SAS bridge deck. Suspender cables will be added to lift the roadway decks off the temporary support structure.

Status: Cable installation is pending the erection of the tower and completion of roadway spans. All cables have been fabricated, shipped and stored in the warehouse at Pier 7 in Oakland. As for the suspenders, 136 of 240 are complete. Cable bands are expected to compete and ship in May 2011. Erection of suspender brackets continue.



Step 4

STEP 5 - WESTBOUND AND EASTBOUND SEISMIC SAFETY OPENING

The new bridge will now open simultaneously in both the westbound and eastbound directions.

Status: Westbound and eastbound opening is forecast for December 2013.



Step 5



Aerial View of Current Progress on the Self-Anchored Suspension Bridge



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities

Roadway and Tower Segments

Like giant three-dimensional jigsaw puzzles, the roadway and tower lifts of the SAS bridge are hollow steel shells that are internally strengthened and stiffened by a highly engineered network of welded steel ribs and diaphragms. The use of steel in this manner allows for a flexible yet relatively light and strong structure able to withstand the massive loads placed on the bridge during seismic events.

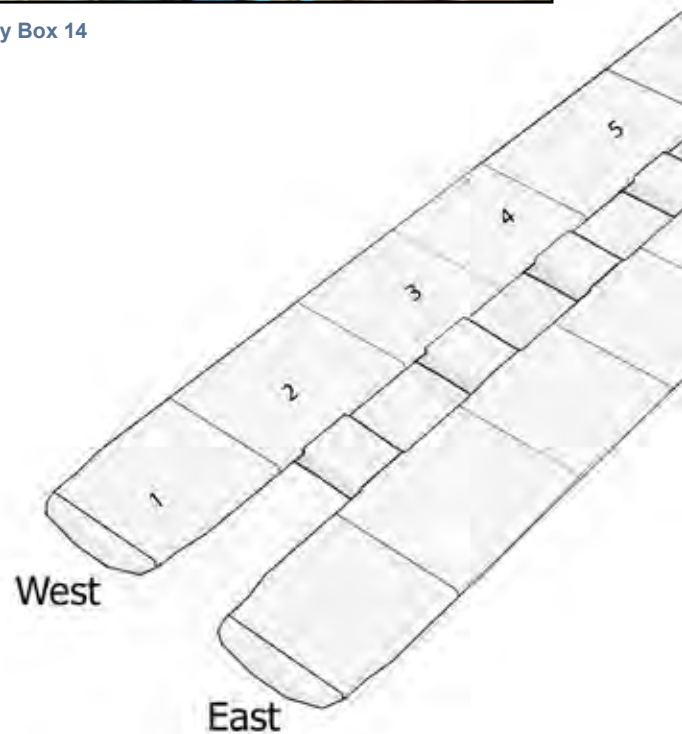
All components undergo a rigorous quality review by ZPMC, ABF, and Caltrans to ensure that only bridge components that have been built according to contract specifications will be shipped.

Roadway Box Fabrication Status: As shown in the diagram to the right, roadway boxes 1 through 11 east and west have been fabricated and shipped to the Bay Area. Roadway boxes 12 east and west are in fabrication and are forecast to ship in May 2011. Fabrication of sub-assemblies for roadway boxes 13 and 14 are ongoing and are forecast to be completed and shipped in July 2011.

Tower Fabrication Status: The tower head facade is in fabrication and scheduled to be shipped to Oakland in May 2011.

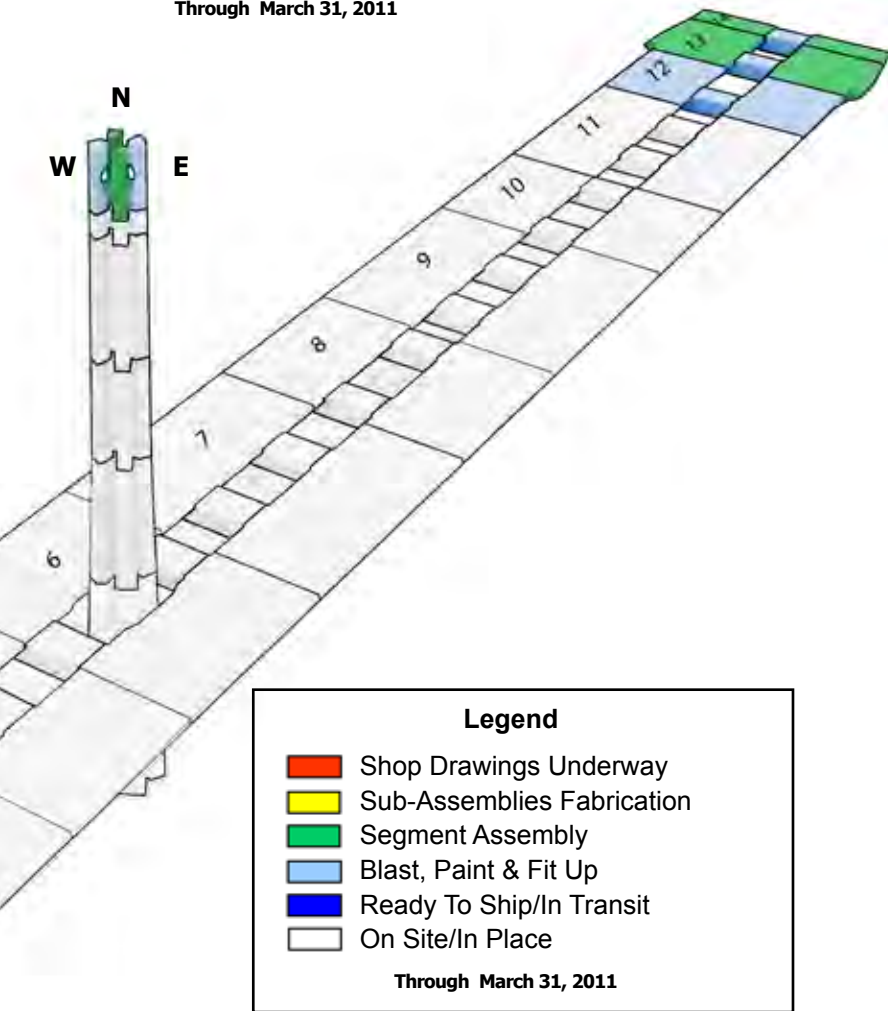


Roadway Box 14



Fabrication Progress Diagram

Through March 31, 2011



Roadway Box 13 East



Roadway Box 13 East



Roadway Box 13 Westbound Cable Return Grillage

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Fabrication Activities (cont.)

Cables and Suspenders

One continuous main cable will be used to support the roadway deck of the SAS bridge. Anchored into the eastern end of the bridge, the main cable will be anchored with the roadway box at the east end of the SAS near Pier E1, extend over the main tower at T1, loop around the western end of the roadway decks at Pier W2, and then travel back over the main tower to the western end of the roadway box. The main cable will be made up of 137 bundles of wire strands. Supporting the roadway decks to the main cable will be a number of smaller suspender cables. The main cable will be fabricated in China and the suspender cables in Missouri, USA.

Status: All tower cables have been fabricated and delivered to the job site and stored at Pier 7 in Oakland. All cable bands are forecast to be completed and shipped to the job site by May 2011. The suspender ropes are nearing completion with 136 of the 240 done. The hand ropes have been shipped and the cable bands are forecast to be completed and shipped in May 2011.

Saddles, Bearings, Hinges, and Other Bridge Components

The mounts on which the main cable and suspender ropes will sit are made from solid steel castings. Castings for the main cable saddles are being made by Japan Steel Works, while the cable bands and brackets are being made by Goodwin Steel in the United Kingdom.

The bridge bearings and hinges that support, connect, and transfer loads from the self-anchored suspension (SAS) span to the adjoining sections of the new east span are being fabricated in a number of locations. Work on the bearings is being performed in Pennsylvania, USA and Hochang, South Korea, while hinge pipe beams are being fabricated in Oregon, USA.

Status: The west and east deviation cable saddles, and the hinge K and jacking beam saddle have been fabricated and installed on the W2 cap beam. Hinge A pipe beam fabrication started in December and projected completion is November 2011.



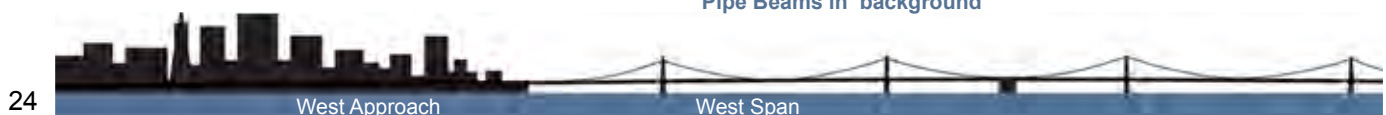
B16 Cable Band For Panel Point 6 East Bound at Dimensional Inspection



Bronze Kettle for Casting Spherical Bearing Components



Recently Erected Jacking Beam Saddle with Hinge K Pipe Beams in background



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Field Activities



Shear-Leg Crane Barge in Process of Lifting Roadway Box 11 E

Shear-Leg Crane Barge

The massive shear-leg barge crane that is helping to build the SAS superstructure arrived in the San Francisco Bay on March 12, 2009 after a trans-Pacific voyage.

The crane and barge are separate units operating as a single entity named the “Left Coast Lifter.” The 400-by-100-foot barge is a U.S.-flagged vessel that was custom built in Portland, Oregon by U.S. Barge, LLC and outfitted with the crane by Shanghai Zhenhua Heavy Industry Co. Ltd. (ZPMC) at a facility near Shanghai, China. The crane’s boom weighs 992 tons and is 328 feet long. The crane can lift up to 1,873 tons, including the deck and tower boxes for the SAS.

Status: The shear-leg crane barge arrived at the job site March 2009. The crane has off-loaded and placed all temporary support structures and SAS roadway boxes and crossbeams.

Temporary Support Structures

To erect the roadway decks and tower of the bridge, temporary support structures were first put in place. Almost a bridge in itself, the temporary support structures stretch from the end of the completed Skyway back to Yerba Buena Island. For the tower, a strand jack system is being built into the tower’s temporary frame to elevate the upper sections of the tower into place. These temporary supports are being fabricated in the Bay Area, as well as in Oregon and in China at ZPMC.

Status: The temporary support structures were completed in mid-September 2010.

Cap Beams

Construction of the massive steel-reinforced concrete cap beams that link the columns at Piers W2 and E2 was left to the SAS superstructure contractor and represents the only concrete portions of work on that contract. The east and west ends of the SAS roadway will rest on the cap beams and the main cable will wrap around Pier W2, while anchoring into the east end of the SAS deck sections near E2.

Status: Completed in March 2009



Temporary Support Structures with E2 Cap Beam and Completed Skyway in background



Pier W2 and Hinge K and West Deviation Saddle Installed

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Self-Anchored Suspension (SAS) Superstructure Roadway and Tower Box Installation Activities

Upon arrival in Oakland, the steel roadway and tower sections are off-loaded directly from the transport ship onto barges to await installation atop the temporary support structures. Steel roadway boxes will be installed from west to east. Due to the shallow waters near Yerba Buena Island, the eastbound lanes on the south side of the new bridge will be installed first, then to be followed by the westbound lanes. In total, there are 28 roadway boxes (14 in each direction) that range from 560 to 1660 tons and from 80 to 230 feet long.

The tower comprises four legs, each made up of four tower lifts that make up the majority of the height of the tower, the tower grillage, and finally the tower head.

Status: Roadway boxes 11 east and west and tower lift four legs and the grillage (lift five) arrived in Oakland February 14, 2011. Twenty two of 28 roadway boxes (1 through 11 east and 1 through 10 west) have been placed on top of temporary support structures to form a continuous roadway. Welding and bolting continues on all roadway boxes. All four legs of tower lift four have been installed as of the end of March, 2011. Fabrication of roadway boxes 12 east and west are in progress and expected to be completed and shipped in May 2011. Roadway boxes 13 and 14 east and west are also in fabrication and are expected to be shipped in July 2011. Cross beams 17, 18 and 19 are in fabrication and will ship in May and July 2011.





Aerial View of Tower Lift 4 Leg 2 Being Pulled up into Position



Aerial View of Roadway Box 11 E Being Installed and the First Leg of the Fourth Tower Lift Erected

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Skyway

The Skyway, which comprises much of the new East Span, will drastically change the appearance of the Bay Bridge. Replacing the gray steel that currently cages drivers, a graceful, elevated roadway supported by piers will provide sweeping views of the bay.

E Skyway Contract

Contractor: Kiewit/FCI/Manson, Joint Venture

Approved Capital Outlay Budget: \$1.25 B

Status: Completed March 2008

Extending for more than a mile across Oakland mudflats, the Skyway is the longest section of the East Span. It sits between the new Self-Anchored Suspension (SAS) span and the Oakland Touchdown. In addition to incorporating the latest seismic-safety technology, the side-by-side roadway decks of the Skyway feature shoulders and lane widths built to modern standards.

The Skyway's decks are composed of 452 pre-cast concrete segments (standing three stories high), containing approximately 200 million pounds of structural steel, 120 million pounds of reinforcing steel, 200 thousand linear feet of piling and about 450 thousand cubic yards of concrete. These are the largest segments of their kind ever cast and were lifted into place by custom-made winches.

The Skyway marine foundation consists of 160 hollow steel pipe piles measuring eight feet in diameter and dispersed among 14 sets of piers. The 365-ton piles were driven more than 300 feet into the deep bay mud. The new East Span piles were battered or driven in at an angle, rather than vertically, to obtain maximum strength and resistance.

Designed specifically to move during a major earthquake, the Skyway features several state-of-the-art seismic safety innovations, including 60-foot-long hinge pipe beams. These beams will allow deck segments on the Skyway to move, enabling the deck to withstand greater motion and to absorb more earthquake energy.



Overview of the Skyway Looking West toward Downtown San Francisco



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Oakland Touchdown

When completed, the Oakland Touchdown (OTD) structures will connect Interstate 80 in Oakland to the new side-by-side decks of the new East Span. For westbound drivers, the OTD will be their introduction to the graceful new East Span. For eastbound drivers from San Francisco, this section of the bridge will carry them from the Skyway to the East Bay, offering unobstructed views of the Oakland hills.

The OTD will be constructed through two contracts. The first contract will build the new westbound lanes, as well as part of the eastbound lanes. The second contract to complete the eastbound lanes cannot fully begin until westbound traffic is shifted onto the new bridge. This enables a portion of the upper deck of the existing bridge to be demolished allowing for a smooth transition for the new eastbound lanes in Oakland.

F Oakland Touchdown #1 Contract

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: \$212.0 M
Status: Completed June 2010

The OTD #1 contract constructs the entire 1,000-foot-long westbound approach from the toll plaza to the Skyway. When open to traffic, the westbound approach structure will provide direct access to the westbound Skyway. In the eastbound direction, the contract will construct a portion of the eastbound structure and all of the eastbound foundations that are not in conflict with the existing bridge.

Status: MCM Construction, Inc. completed OTD #1 westbound and eastbound phase 1 on June 8, 2010.

G Oakland Detour

Contractor: MCM Construction, Inc.
Approved Capital Outlay Budget: \$51.0 M
Status: In Construction

To ensure a simultaneous eastbound and westbound opening of the bridge by December 2013, the TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. The detour realigns the bridge approach to the south to allow for construction of the remaining portion of OTD that was in conflict with the existing bridge.

Status: BATA began funding the detour and acceleration plan from the program contingency in March 2011. The eastbound detour is scheduled to open by the end of May 2011 and the westbound detour at the end of 2011. A full closure of the bridge is not expected at this time.

The Burma Road extension access is complete and the PG&E power poles have been relocated. The BCDC permit has been issued, as well as a the SWPPP amendment from the Water Board. Construction on the East Bay Municipal Utility District (EBMUD) outfall bridge started in March 2011.

H Oakland Touchdown #2 Contract

Contractor: TBD
Approved Capital Outlay Budget: \$62.0 M
Status: In Design

The OTD #2 contract will complete the eastbound approach structure from the end of the Skyway to Oakland. This work is critical to the eastbound opening of the new bridge, by December 2013.

Status: The TBPOC has approved an acceleration plan that will construct a detour at the Oakland end of the bridge to allow for expedited construction of the OTD #2 contract. OTD #2 is currently in design and the contract for construction will be advertised in October 2011 and awarded in April 2012.



TOLL BRIDGE SEISMIC RETROFIT PROGRAM

San Francisco-Oakland Bay Bridge East Span Replacement Project Other Contracts

A number of contracts needed to relocate utilities, clear areas of archeological artifacts, and prepare areas for future work have already been completed. The last major contract will be the eventual demolition and removal of the existing bridge, which by that time will have served the Bay Area for nearly 80 years. Following is a status of some the other East Span contracts.

East Span Interim Seismic Retrofit

Contractors: 1) California Engineering
2) Balfour Beatty

Approved Capital Outlay Budget: \$30.8 M

Status: Completed October 2000

After the 1989 Loma Prieta Earthquake, and before the final retrofit strategy was determined for the East Span, Caltrans completed an interim retrofit of the existing bridge to prevent a catastrophic collapse of the bridge should a similar earthquake occur before the East Span was completely replaced. The interim retrofit was performed under two separate contracts that lengthened pier seats, added some structural members, and strengthened areas of the bridge so they would be more resilient during an earthquake.



Archeological Investigations



Existing East Span of the San Francisco-Oakland Bay Bridge

Stormwater Treatment Measures

Contractor: Diablo Construction, Inc.

Approved Capital Outlay Budget: \$18.3 M

Status: Completed December 2008

The Stormwater Treatment Measures contract implemented a number of best practices for the management and treatment of stormwater runoff. Focused on the areas around and approaching the toll plaza, the contract added new drainage and built new bio-retention swales and other related constructs.



Stormwater Retention Basin



Yerba Buena Island Substation

Contractor: West Bay Builders

Approved Capital Outlay Budget: \$11.6 M

Status: Completed May 2005

This contract relocated an electrical substation just east of the Yerba Buena Island Tunnel in preparation for the new East Span.

Pile Installation Demonstration

Contractor: Manson and Dutra, Joint Venture

Approved Capital Outlay Budget: \$9.2 M

Status: Completed December 2000

While large-diameter battered piles are common in offshore drilling, the new East Span is one of the first bridges to use them in its foundations. To minimize project risks and build industry knowledge, a pile installation demonstration project was initiated to prove the efficacy of the proposed technology and methodology. The demonstration was highly successful and helped result in zero contract change orders or claims for pile driving on the project.

I Existing Bridge Demolition

Contractor: TBD

Approved Capital Outlay Budget: \$239.1 M

Status: In Design

Design work on the demolition of the existing bridge will start in earnest as the opening of the new bridge to traffic approaches. The current plan is to complete the environmental clearance by December 2011, obtain all permits by June 2012 and advertise and award the contract in January 2013. Demolition of the existing bridge is scheduled to begin immediately after the new bridge is opened to traffic in 2013.



New YBI Electrical Substation

J Electrical Cable Relocation

Contractor: Manson Construction

Approved Capital Outlay Budget: \$9.6 M

Status: Completed January 2008

A submerged cable from Oakland that is close to where the new bridge will touch down supplies electrical power to Treasure Island. To avoid any possible damage to the cable during construction, two new replacement cables were run from Oakland to Treasure Island. The extra cable was funded by the Treasure Island Development Authority.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Antioch Bridge Seismic Retrofit Project

Contractor: California Engineering Contractors, Inc.

Approved Capital Outlay Budget: \$70.0 M

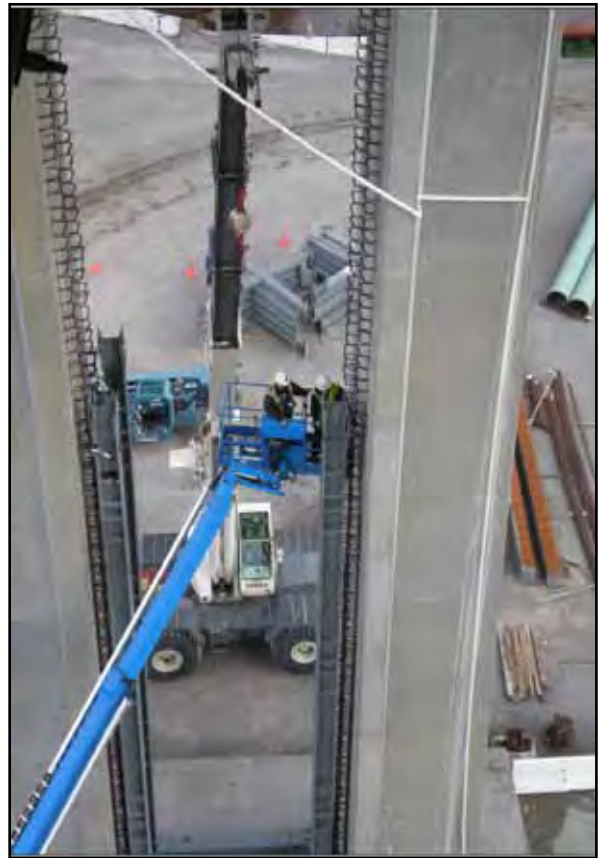
Status: 33% Complete as of March 2011

Serving the Delta region of the Bay Area, the Antioch Bridge takes State Route 160 traffic over the San Joaquin River, linking eastern Contra Costa County with Sacramento County. The current 1.8-mile-long steel plate girder bridge was opened in 1978 with one lane in each direction. The major retrofit measure for the bridge includes installing seismic isolation bearings at each of the 41 piers, strengthening piers 12 through 31 with steel cross-bracing between column bents and installing steel casings at all columns located at the Sherman Island approach slab bridge.

Status: Drilling and bonding of reinforcing steel for cross bracing pedestals at land piers is complete for 10 of 20 piers. Suspended platforms are being installed within the waterway so drilling and bonding operations can be completed. Coring drilling is completed through the bent caps at 21 of 38 piers. The bent caps will be strengthened by installation of high-strength prestressing bars within the cored holes followed by post-tensioning of the bars and grouting.

Jacking web stiffening required to lift the bridge for installation of isolation bearing have been completed at 9 of 41 piers. Isolation bearings have been installed at piers 2, 3, 6 and 7. This represents 8 (2 bearings per pier) of the total 82 isolation bearings to be installed. Of the 82 isolation bearings required for the project, 22 have been fabricated and tested (Earthquake Protection Systems), and are ready for delivery to the site. Steel cross bracing is being used to strengthen the tallest bent piers. Approximately 20% of the cross bracing has been fabricated (Brooklyn Iron Works), and cross bracing members have been delivered to the site for piers 30 and 31.

Steel confinement casings will be installed at all slab bridge approach columns located on Sherman Island. All 116 steel casings have been fabricated (Trade Winds Steel Group) for painting prior to shipment to the site in coming months.



Aerial Installation of Cross Frames



Cross Frames Being Prepared for Installation of Pedestal Forms



Jacking Columns at Pier 39



Isolation Bearing at Lay-Down Area

Dumbarton Bridge Seismic Retrofit Project

Contractor: Shimmick Construction Company, Inc.

Approved Capital Outlay Budget: \$92.7 M

Status: 14% Complete as of March 2011

The current Dumbarton Bridge was opened to traffic in 1982 linking the cities of Newark in Alameda County and East Palo Alto in San Mateo County. The 1.6-mile long bridge has six lanes (three in each direction) and an eight-foot bicycle/pedestrian pathway. The bridge is a combination of three bridge types; reinforced concrete slab approaches supported on multiple pile extension columns, precast-prestressed concrete delta girders and steel box girders supported on reinforced concrete piers. The current retrofit strategy for the bridge includes superstructure and deck modifications and installation of isolation bearings.

Status: Pre-stressed concrete piles have been driven for the new belvedere lookout. Retrofit of the curtain wall hangers is ongoing at the east approach slab structure. The 48-inch steel piles have been driven adjacent to the east approach slab structure. Fabrication has begun on the rebar cages for the concrete infill in the 48-inch piles and the orthogonal column.



Dumbarton Bridge

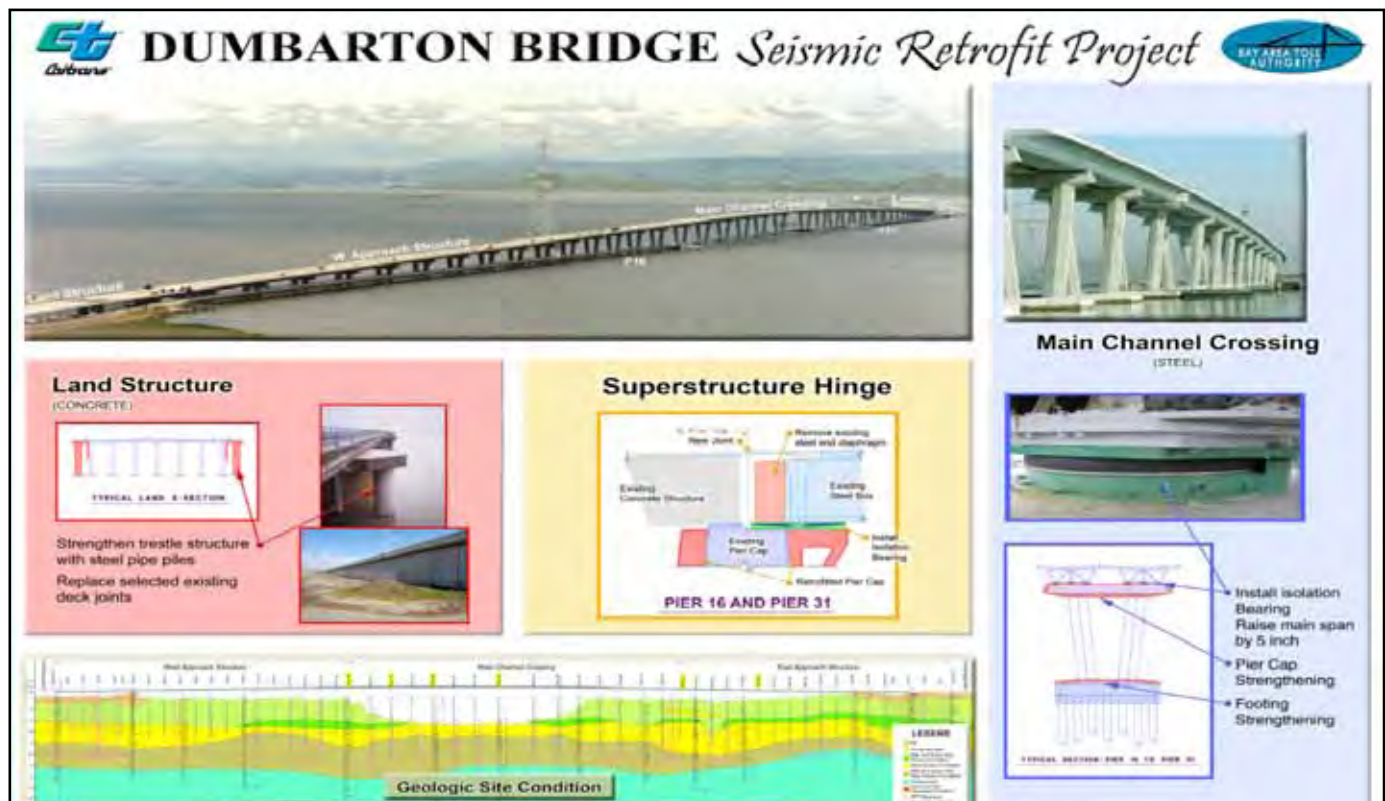


Diagram of Proposed Retrofit Work on the Dumbarton Bridge



Surveying of forms at Bent Cap Extension



Forms for Bent Cap Extension - West Approach Spans

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Other Completed Projects

In the 1990s, the State Legislature identified seven of the nine state-owned toll bridges for seismic retrofit. In addition to the San Francisco-Oakland Bay Bridge, these included the Benicia-Martinez, Carquinez, Richmond-San Rafael and San Mateo-Hayward bridges in the Bay Area, and the Vincent Thomas and Coronado bridges in Southern California. Other than the East Span of the Bay Bridge, the retrofits of all of the bridges have been completed as planned.

San Mateo-Hayward Bridge Seismic Retrofit Project

Project Status: Completed 2000

The San Mateo-Hayward Bridge seismic retrofit project focused on strengthening the high-rise portion of the span. The foundations of the bridge were significantly upgraded with additional piles.



High-Rise Section of San Mateo-Hayward Bridge

1958 Carquinez Bridge Seismic Retrofit Project

Project Status: Completed 2002

The eastbound 1958 Carquinez Bridge was retrofitted in 2002 with additional reinforcement of the cantilever thru-truss structure.



1958 Carquinez Bridge (foreground) with the 1927 Span (middle) under Demolition and the New Alfred Zampa Memorial Bridge (background)

1962 Benicia-Martinez Bridge Seismic Retrofit Project

Project Status: Completed 2003

The southbound 1962 Benicia-Martinez Bridge was retrofitted to "Lifeline" status with the strengthening of the foundations and columns and the addition of seismic bearings that allow the bridge to move during a major seismic event. The Lifeline status means the bridge is designed to sustain minor to moderate damage after a seismic event and to reopen quickly to emergency response traffic.



1962 Benicia-Martinez Bridge (right)

Richmond-San Rafael Bridge Seismic Retrofit Project

Project Status: Completed 2005

The Richmond-San Rafael Bridge was retrofitted to a “No Collapse” classification to avoid catastrophic failure during a major seismic event. The foundations, columns, and truss of the bridge were strengthened, and the entire low-rise approach viaduct from Marin County was replaced.



Richmond-San Rafael Bridge

Los Angeles-Vincent Thomas Bridge Seismic Retrofit Project

Project Status: Completed 2000

The Vincent Thomas Bridge is a 1,500-foot long suspension bridge crossing the Los Angeles Harbor in Los Angeles that links San Pedro with Terminal Island. The bridge was one of two state-owned toll bridges in Southern California (the other being the San Diego-Coronado Bridge). Opened in 1963, the bridge was seismically retrofitted as part of the TBSRP in 2000.



Los Angeles-Vincent Thomas Bridge

San Diego-Coronado Bridge Seismic Retrofit Project

Project Status: Completed 2002

The San Diego-Coronado Bridge crosses over San Diego Bay and links the cities of San Diego and Coronado. Opened in 1969, the 2.1-mile long bridge was seismically retrofitted as part of the Toll Bridge Seismic Retrofit Project in 2002.



San Diego-Coronado Bridge

TOLL BRIDGE SEISMIC RETROFIT PROGRAM Risk Management Program Update

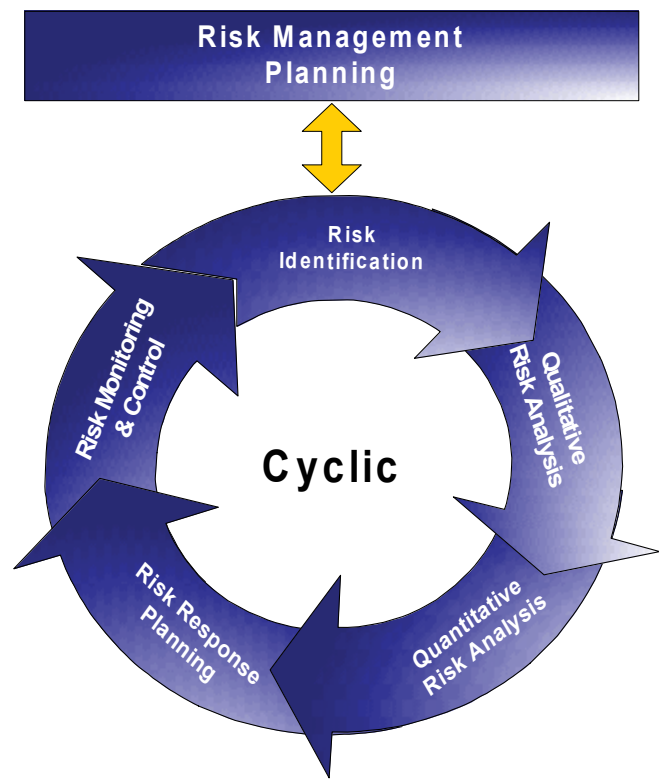
POTENTIAL DRAW ON PROGRAM RESERVE (PROGRAM CONTINGENCY)

Assembly Bill (AB) 144 provides that Caltrans “regularly reassess its reserves for potential claims and unknown risks, incorporating information related to risks identified and quantified through its risk assessment processes.”

AB 144 set a \$900 million Program Reserve (also referred to as the Program Contingency). On October 11, 2009, Governor Schwarzenegger approved Assembly Bill No. 1175 that added the Dumbarton and Antioch Bridges to the Toll Bridge Seismic Retrofit Program and this resulted in changes to Program Contingency. The Program Contingency is currently \$415 million according to the TBPOC Approved Budget.

The approved TBSRP Risk Management Plan provides for the determination of the estimated potential draw on Program Contingency each quarter based on the total of all risks and the contingencies remaining from the contracts. Each contract in design has an assigned contingency allowance. A contract in construction has a remaining contingency, which is the difference between its budget and the sum of bid items, state-furnished materials, contract change orders and remaining supplemental work. Capital outlay support has no identified contingency allowance. The total of the contingencies is the amount that is available to cover the risks of all contracts, program-level risks (the risks not assigned to a particular contract), and capital outlay support risks. The amount by which the sum of all risks may exceed the total of all contingencies would represent a potential draw on the Program Contingency (i.e., Program Reserve).

The approved TBSRP Risk Management Plan provides for the determination of the estimated potential draw on Program Contingency each



quarter, and compares it to the current balance in the Program Contingency. The fourth quarter of 2010 potential draw curve is shown in Figure 1. In the fourth quarter of 2010, the project team, with approval of the TBPOC, began development of an alternate Oakland detour alignment at the Oakland Touchdown end of the bridge. An alternate Oakland detour alignment proposal was subsequently approved by the TBPOC and provides for accelerated completion of the OTD eastbound structure, which results in earlier seismic safety to the travelling public by allowing concurrent traffic openings in both the eastbound and westbound directions.

The risk management team analyzed the risks and uncertainties associated with the capital outlay, right-of-way, and capital outlay support estimates of the alternate Oakland detour work, and the preliminary costs and risk ranges are also shown in Figure 1. The schedule for implementation of the alternate Oakland detour work has been incorporated into the corridor schedule risk analysis this quarter. Consequently, the OTD 2 contract

is effectively moved off the critical path to seismic safety and the risk to the bridge-opening milestone has reduced considerably from the previous quarter. The cost and schedule risks associated with the alternate Oakland detour work will be updated next quarter, as the scope of work is currently being perfected to ensure its most efficient execution with the adjoining corridor construction contracts.

As of the end of the fourth quarter of 2010, the 50 percent probable draw on Program Contingency, including alternate Oakland detour costs and risks, is \$218 million (see Figure 1). The potential draw, including alternate Oakland detour costs and risks, ranges from about \$95 million to \$350 million. Therefore, the current Program Contingency balance is sufficient to cover the cost of currently identified risks and the TBPOC-approved alternate Oakland detour work.

In accordance with the approved TBSRP Risk Management Plan, risk mitigation actions are continuously developed and implemented to reduce the potential draw on the Program Contingency.

RISK MANAGEMENT DEVELOPMENTS

The Risk Management Cost decreased by \$59 million from the previous quarter, primarily due to the decreases in risks of the SAS, Antioch and Dumbarton Bridge contracts, and in capital outlay support risks.

The SAS contractor submitted a new schedule that meets the accelerated schedule milestones provided in the contract change order executed between Caltrans and the SAS contractor in the third quarter of 2010. The schedule is very aggressive and there are risks to the future

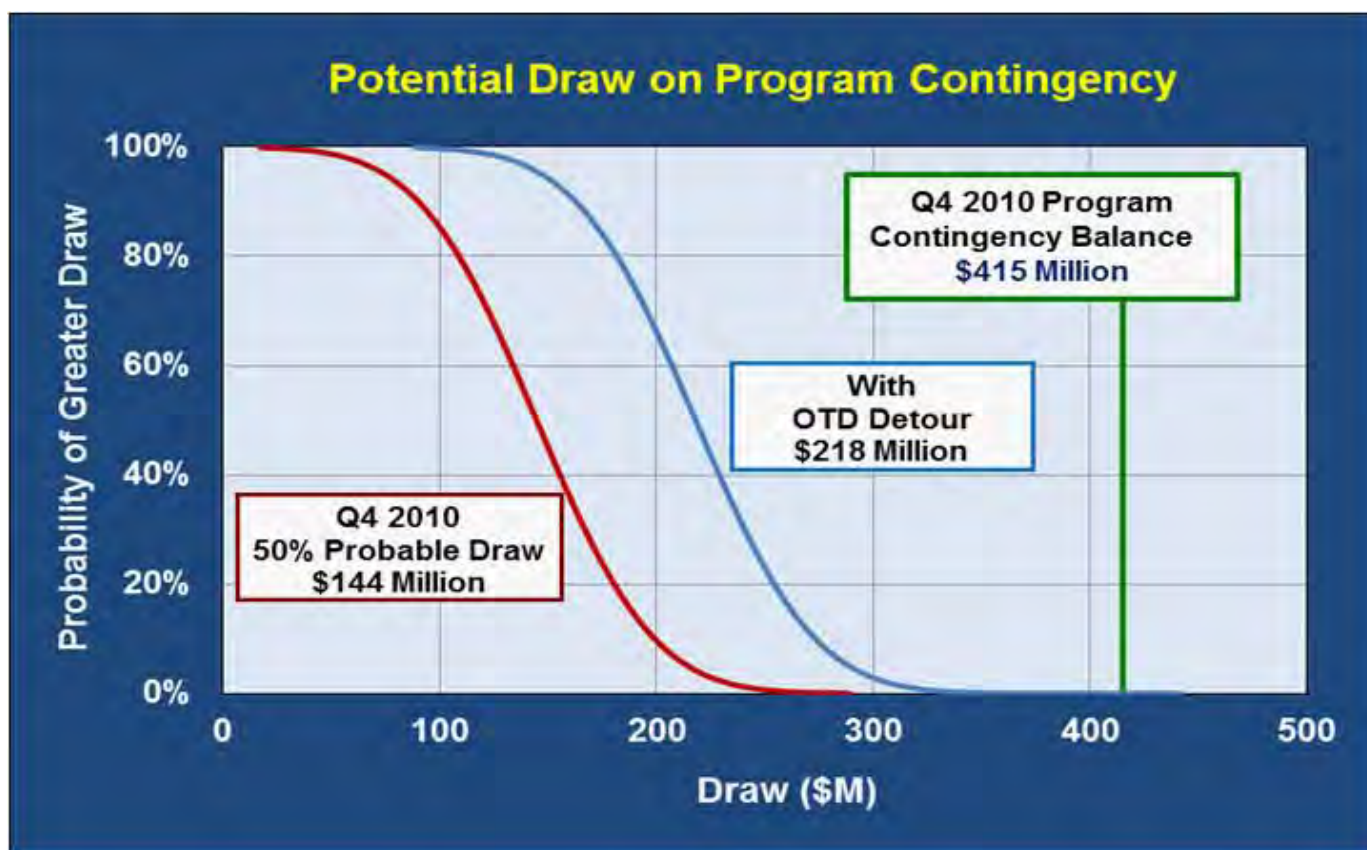


Figure 1 – Potential Draw on Program Contingency*

*Figure 1 Notes:

1. Potential out-of-scope program risks excluded.
2. Program Contingency may be used for other beneficial purposes than to cover risks. The potential draw chart should not be construed as a forecast of the future balance of Program Contingency funds.

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Risk Management Program Update (cont.)

activities on the critical paths through bridge deck orthotropic box girder delivery and erection, cable installation, load transfer, and completion of Mechanical, Electrical, and Plumbing (MEP) systems required for the opening. Caltrans and the SAS contractor are implementing a plan to enhance mutual schedule management in order to proactively identify impending risks so that action can be taken swiftly to prevent or mitigate potential delays. The risk management team has assessed the risks and identified Caltrans activities that must align with the SAS contractor's incentivized milestones.

RISK MANAGEMENT LOOK AHEAD

An important aspect of the SAS schedule – and of all schedules for large projects – is that there may be multiple critical paths to the milestones. The most critical path to seismic safety opening contains the fabrication and erection of Lifts 13 and 14, and completion of the cable system and MEP systems required for seismic safety opening. Caltrans will be monitoring the critical paths and managing all corridor contract incentive and disincentive provisions to achieve the TBPOC's goal of opening the bridge in 2013. The Cable Engineering Risk Management (CERM) team continues to identify and resolve

outstanding cable installation issues. The CERM team has recommended several modifications that have resolved potential spatial conflicts and issues related to cable rotation during installation of the cable bands and suspenders.



Hinge 'A' Floorbeams installed in Roadway Box 14 (East) at ZPMC in China



Fourth Lift Tower Cross Bracing

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Program Funding Status

AB 144 established a funding level of \$8.685 billion for the TBSRP. The bill specifies program funding sources as shown in Table 1-Program Budget.

**Table 1—Program Budget
as of December 31, 2010 (\$ Millions)**

	Budgeted	Funding Available & Contribution
Financing		
Seismic Surcharge Revenue AB 1171	2,282.0	2,282.0
Seismic Surcharge Revenue AB 144	2,150.0	2,150.0
Seismic Surcharge Revenue AB 1175 ⁽⁵⁾	750.0	750.0
BATA Consolidation	820.0	820.0
Subtotal - Financing	6,002.0	6,002.0
Contributions		
Proposition 192	790.0	789.0
San Diego Coronado Toll Bridge Revenue Fund	33.0	33.0
Vincent Thomas Bridge	15.0	6.9
State Highway Account ⁽¹⁾⁽²⁾	745.0	745.0
Public Transportation Account ⁽¹⁾⁽³⁾	130.0	130.0
ITIP/SHOPP/Federal Contingency	448.0	100.0
Federal Highway Bridge Replacement and Rehabilitation (HBRR)	642.0	642.0
SHA - East Span Demolition	300.0	-
SHA - "Efficiency Savings" ⁽⁴⁾	130.0	10.0
Redirect Spillover	125.0	125.0
Motor Vehicle Account	75.0	75.0
Subtotal - Contribution	3,433.0	2,655.9
Total Funding	9,435.0	8,657.9
Encumbered to Date		7,987.5
Remaining Unallocated		670.4
Expenditures :		
Capital Outlay		5,479.8
State Operations		1,430.8
Antioch and Dumbarton Expenditures by BATA		12.2
Total Expenditures		6,922.8
Encumbrances : ⁽⁶⁾		
Capital Outlay		1,042.0
State Operations		22.7
Total Encumbrances		1,064.7
Total Expenditures and Encumbrances		7,987.5

⁽¹⁾ The California Transportation Commission adopted a new schedule and changed the PTA/SHA split on December 15, 2005.

⁽²⁾ To date \$645 million has been transferred from the SHA to the TBSRP, including the full \$290 million transfer scheduled by the CTC to occur in 2005-06. An additional \$100 million has been expended directly from the account.

⁽³⁾ To date \$130 million has been transferred from the PTA to the TBSRP, including the full amount of all transfers scheduled by the CTC.

⁽⁴⁾ To date \$10 million has been transferred from the SHA to the TBSRP, representing the commitment of "Efficiency Savings" identified under AB 144.

Approximately \$120 million remains to be distributed as scheduled by the CTC.

⁽⁵⁾ As of January 1, 2010, seismic retrofitting of Antioch and Dumbarton Bridges became part of the Toll Bridge Seismic Retrofit Program with the passage of AB 1175.

Summary of the Toll Bridge Oversight Committee (TBOC) Expenses

Pursuant to Streets and Highways Code Section 30952.1 (d), expenses incurred by Caltrans, BATA, and the California Transportation Commission (CTC) for costs directly related to the duties associated with the TBOC are to be reimbursed by toll revenues. Table 3 -Toll Bridge Program Oversight Committee Estimated Expenses: July 1, 2005 through December 31, 2010 shows expenses through December 30, 2010 for TBOC functioning, support, and monthly and quarterly reporting.

Table 2—CTC Toll Bridge Seismic Retrofit Program Contributions Adopted December 2005
Schedule of Contributions to the Toll Bridge Seismic Retrofit Program (\$ Millions)

Source	Description	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	2008-09 (Actual)	2009-10 (Actual)	2010-11	2011-12	2012-13	2013-14	Total
AB 1171	SHA	290									290
	PTA	80	40								120
	Highway Bridge Replacement and Rehabilitation (HBRR)	100	100	100	42						342
	Contingency				1	99	100	100	148		448
AB 144	SHA*	2	8				53	50	17		130
	Motor Vehicle Account (MVA)	75									75
	Spillover		125								125
	SHA**									300	300
	Total	547	273	100	43	99	153	150	165	300	1830

* Caltrans Efficiency Savings

** SFOBB East Span Demolition Cost

Table 3—Toll Bridge Program Oversight Committee
Estimated Expenses: July 1, 2005 through December 31, 2010 (\$ Millions)

Agency/Program Activity	Expenses
BATA	1.0
Caltrans	2.1
CTC	1.5
Reporting	3.8
Total Program	8.4

TOLL BRIDGE SEISMIC RETROFIT PROGRAM

Quarterly Environmental Compliance Highlights

Overall environmental compliance for the SFOBB East Span project has been a success. All weekly, monthly and annual compliance reports to resource agencies have been delivered on time. There are no comments from receiving agencies. The tasks for the current quarter are focused on mitigation monitoring. Key successes in this quarter are as follows:

- Bird monitoring was conducted weekly in the active construction area. Monitors did not observe any indication that birds were disturbed due to the East Span construction activities.
- Peregrine falcon monitoring for the 2010/2011 nesting season began on December 3, 2010 and will continue through June 2011. Monitors have observed peregrines flying through and roosting within the project area.
- San Francisco-Oakland Bay Bridge (SFOBB) environmental compliance and storm water pollution prevention plan (SWPPP) inspections were conducted weekly at all active project sites. The project team continues to work closely with contractors to ensure compliance with environmental permits and regulations and improve SWPPP and best management practices.
- On December 1, 2010 Caltrans submitted a request for Amendment No. 29 to San Francisco Bay Conservation and Development Commission (BCDC) Permit No. 8-01 for the proposed repaving and temporary use of Burma Road, which is part of Phase 1 of the Temporary Oakland Touchdown (OTD) Detour for SFOBB Acceleration.
- On December 7, 2010 Caltrans received Amendment Nos. 27 and 28 to BCDC Permit No. 8-01. Amendment No. 27 authorized an extension of time to guarantee public access improvement at the Oakland Touchdown and on Yerba Buena Island. Amendment No. 27 also authorized the construction of a bus-turnaround which will improve public access to the new SFOBB. Amendment No. 28 extended permit deadline for the removal of temporary structures associated with the South-South Detour.
- Caltrans is working with agencies to explore options to meet requirements for shorebird roosting habitat mitigation.



Peregrine Falcon Nesting Undisturbed



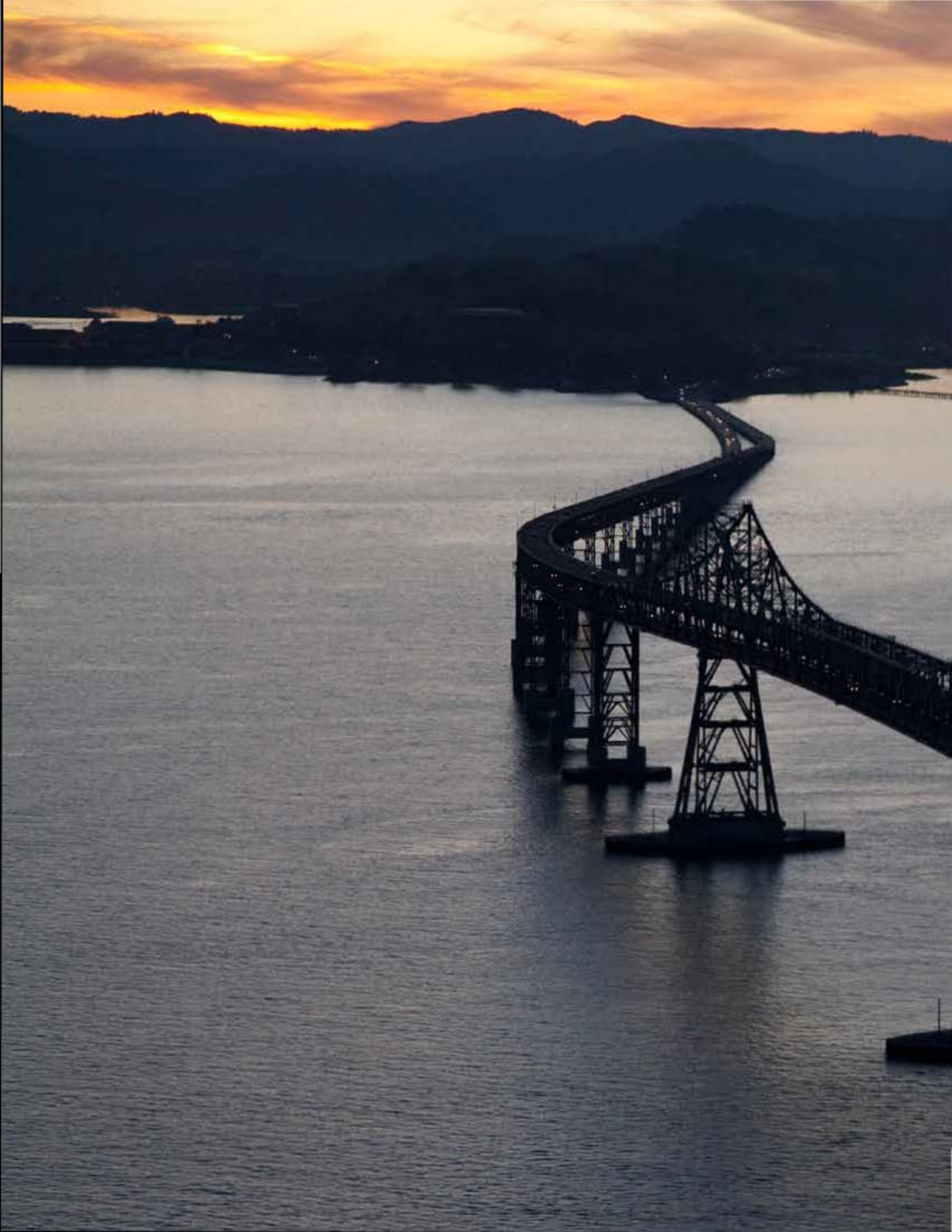
Silt Fencing Best Management Practices

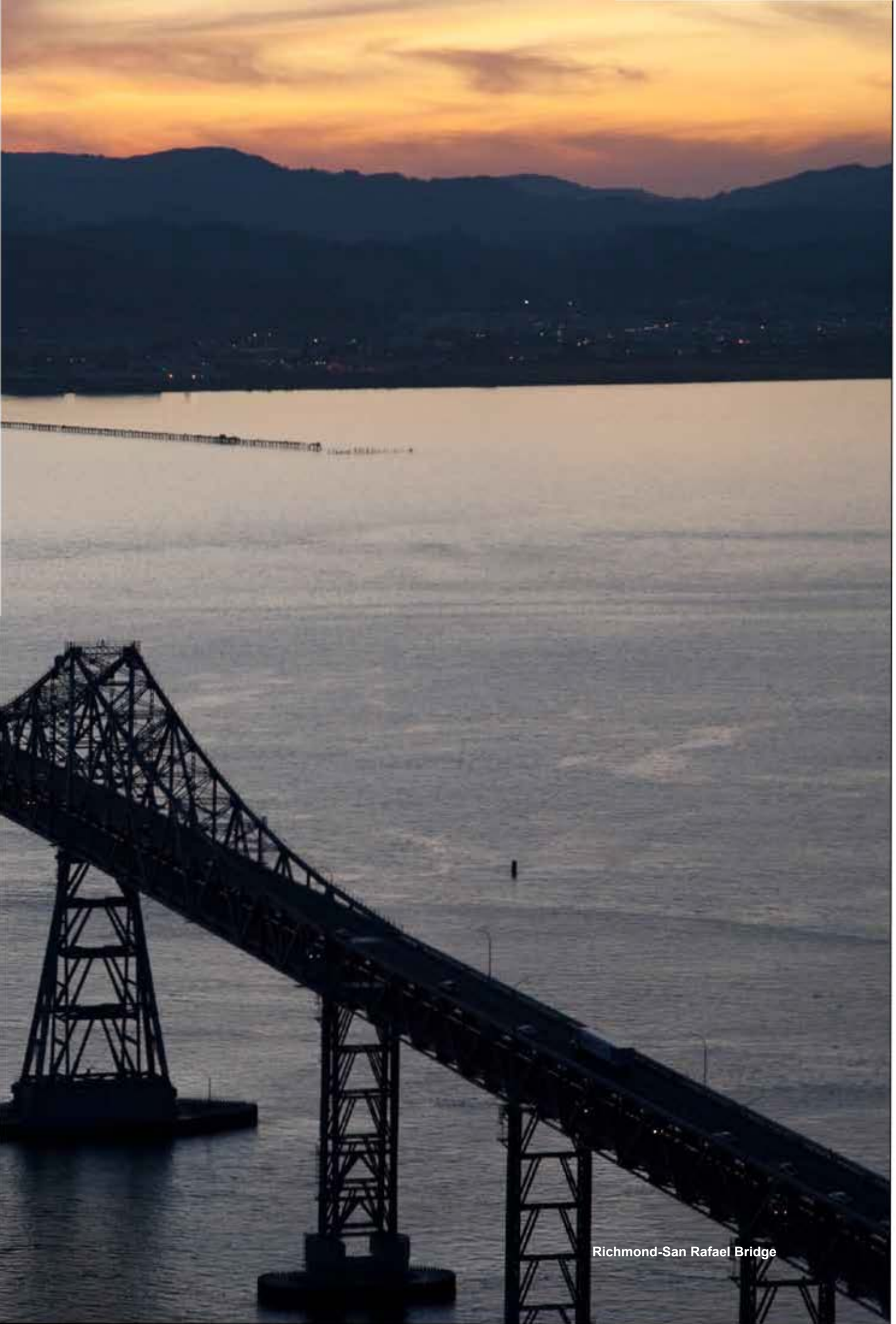


Bonded Fiber Matrix Hydroseed Best Management Practices



Hinge K Pipe Beam and the West Deviation Saddle Looking North





Richmond-San Rafael Bridge

REGIONAL MEASURE 1 TOLL BRIDGE PROGRAM

REGIONAL MEASURE 1 PROGRAM

Interstate 880/State Route 92 Interchange Reconstruction Project

Project Status: In Construction

The Interstate 880/State Route 92 Interchange Reconstruction Project is the final project under the Regional Measure 1 Toll Bridge Program. Project completion fulfills a promise made to Bay Area voters in 1988 to deliver a slate of projects that help expand bridge capacity and improve safety on the bridges.

Interstate 880/State Route 92 Interchange Reconstruction Contract

Contractor: Flatiron/Granite

Approved Capital Outlay Budget: \$158.0 M

Status: 83% Complete as of March 2011

This corridor is consistently one of the Bay Area's most congested during the evening commute. This is due in part to the lane merging and weaving that is required by the existing cloverleaf interchange. The new interchange will feature direct freeway-to-freeway connector ramps that will increase traffic capacity and improve overall safety and traffic operations in the area. With the new direct-connector ramps, drivers coming off of the San Mateo-Hayward Bridge can access Interstate 880 without having to compete with traffic headed onto east Route 92 from south Interstate 880 (see progress photos on pages 66 and 67).



Calaroga Bridge Work in Progress



Aerial View of Construction Progress



Future Interstate 880/State Route 92 Interchange (as simulated) Looking West toward San Mateo

Stage 1 – Construct East Route 92 to North Interstate 880 Connector

The new east Route 92 to north Interstate 880 connector (ENCONN) is the most critical fly-over structure for relieving congestion in the corridor. The ENCONN will be first used as a detour to allow for future stages of work, while keeping traffic flowing.

Status: ENCONN was completed and opened to detour traffic on May 16, 2009.

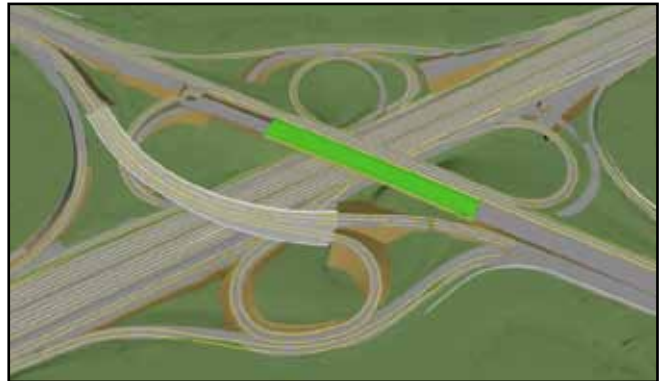


Stage 1 - Construct East Route 92 to North Interstate 880 Direct Connector

Stage 2 – Replace South Side of Route 92 Separation Structure

By detouring eastbound Route 92 traffic onto ENCONN, the existing separation structure that carries SR92 over I-880 can be replaced. The existing structure will be cut lengthwise, and then demolished and replaced separately. In this stage, the south side of the structure will be replaced, while west Route 92 and south Interstate 880 to east Route 92 traffic will stay on the remaining structure.

Status: Work on the south side of the separation structure is complete.



Stage 2 - Demolish and Replace South Side of Route 92 Separation Structure

Stage 3 – Replace North Side of Route 92 Separation Structure

Upon completion of Stage 2, the existing north side of the separation structure will be demolished and replaced. Its traffic will then be shifted onto the newly reconstructed south side.

Status: The north side of the structure is scheduled to open to traffic in February, pending weather and construction progress.



Stage 3 - Demolish and Replace North Side of Route 92 Separation Structure

Stage 4 – Final Realignment and Other Work

In addition to ENCONN and the separation structure, direct north 880 to west 92 connector (NWCONN) and west 92 to south 880 connector (WSCONN) remain to be completed. The new Eldridge Avenue pedestrian overcrossing is now complete.

Status: The NWCONN structure opened to traffic in October 2010. The WSCONN structure is scheduled to be fully opened in June 2011, and will be followed soon after by the opening of the ENCONN structure in its final alignment in July 2011.



Stage 4 - Final Realignment and Other Work

REGIONAL MEASURE 1 PROGRAM

Other Completed Projects

San Mateo-Hayward Bridge-Widening Project

Project Status: Completed 2003

This project expanded the low-rise concrete trestle section of the San Mateo-Hayward Bridge to allow for three lanes in each direction to match the existing configuration of the high-rise steel section of the bridge.



Widening of the San Mateo-Hayward Bridge Trestle on Left

Richmond-San Rafael Bridge Rehabilitation Projects

Project Status: Completed 2006

Two major rehabilitation projects for the Richmond-San Rafael Bridge were funded and completed: (1) replacement of the western concrete approach trestle and ship-collision protection fender system; and (2) rehabilitation of deck joints and resurfacing of the bridge deck.

In 2005, along with the seismic retrofit of the bridge, the trestle and fender replacement work was completed as part of the same project. Under a separate contract in 2006, the bridge was resurfaced with a polyester concrete overlay along with the repair of numerous deck joints.



New Richmond-San Rafael Bridge West Approach Trestle under Construction

Richmond Parkway Construction Project

Project Status: Completed 2001

The final connections to the Richmond Parkway from Interstate 580 near the Richmond-San Rafael Bridge were completed in May 2001.

New Alfred Zampa Memorial (Carquinez) Bridge Project

Project Status: Completed 2003



New Alfred Zampa Memorial (Carquinez) Bridge Soon after Opening to Traffic, with Crockett Interchange Still under Construction

The new western span of the Carquinez Bridge, which replaced the original 1927 span, is a twin-towered suspension bridge with three mixed-flow lanes, a new carpool lane shoulders and a bicycle and pedestrian pathway.

Benicia-Martinez Bridge Project

Project Status: Completed 2009



Benicia-Martinez Bridge Pedestrian/Bicycle Pathway Opened to the Public in August 2009

A two-year project to rehabilitate and reconfigure the original Benicia-Martinez Bridge began shortly after the opening of the new Congressman George Miller Bridge. The existing 1.2-mile roadway surface on the steel deck truss bridge was modified to carry four lanes of southbound traffic (one more than before)—with shoulders on both sides—plus a bicycle/pedestrian path on the west side of the span that connects to Park Road in Benicia and to Marina Vista Boulevard in Martinez. Reconstruction of the east side of the bridge and approaches was completed in August 2008, and reconstruction of the west side of the bridge and approaches and construction of the bicycle/pedestrian pathway was completed in August 2009.

Bayfront Expressway (State Route 84) Widening Project

Project Status: Completed 2004

This project expanded and improved the roadway from the Dumbarton Bridge touchdown to the US 101/Marsh Road interchange by adding additional lanes and turn pockets and improving bicycle and pedestrian access in the area.





APPENDICES

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Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
SFOBB East Span Replacement Project						
Capital Outlay Support	959.3	203.0	1,162.3	930.0	1,284.2	121.9
Capital Outlay Construction	4,492.2	496.8	4,989.0	3,775.5	5,109.0	120.0
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total	5,486.6	696.5	6,183.1	4,706.2	6,400.9	217.8
SFOBB West Approach Replacement						
Capital Outlay Support	120.0	(2.0)	118.0	117.9	118.5	0.5
Capital Outlay Construction	309.0	41.7	350.7	328.4	338.1	(12.6)
Total	429.0	39.7	468.7	446.3	456.6	(12.1)
SFOBB West Span Retrofit						
Capital Outlay Support	75.0	(0.2)	74.8	74.9	74.8	-
Capital Outlay Construction	232.9	(5.5)	227.4	227.4	227.4	-
Total	307.9	(5.7)	302.2	302.3	302.2	-
Richmond-San Rafael Bridge Retrofit						
Capital Outlay Support	134.0	(7.0)	127.0	126.8	127.0	-
Capital Outlay Construction	780.0	(90.5)	689.5	667.5	689.5	-
Total	914.0	(97.5)	816.5	794.3	816.5	-
Benicia-Martinez Bridge Retrofit						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
Total	177.8	-	177.8	177.8	177.8	-
Carquinez Bridge Retrofit						
Capital Outlay Support	28.7	0.1	28.8	28.8	28.8	-
Capital Outlay Construction	85.5	(0.1)	85.4	85.4	85.4	-
Total	114.2	-	114.2	114.2	114.2	-
San Mateo-Hayward Retrofit						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	(0.1)	135.3	135.3	135.3	-
Total	163.5	(0.1)	163.4	163.4	163.4	-
Vincent Thomas Bridge Retrofit (Los Angeles)						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	(0.1)	42.0	42.0	42.0	-
Total	58.5	(0.1)	58.4	58.4	58.4	-
San Diego-Coronado Bridge Retrofit						
Capital Outlay Support	33.5	(0.3)	33.2	33.2	33.2	-
Capital Outlay Construction	70.0	(0.6)	69.4	69.4	69.4	-
Total	103.5	(0.9)	102.6	102.6	102.6	-

Appendix A-1: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Antioch Bridge						
Capital Outlay Support	-	31.0	31.0	12.1	35.7	4.7
Capital Outlay Support by BATA				6.2		
Capital Outlay Construction	-	70.0	70.0	15.0	62.0	(8.0)
Total	-	101.0	101.0	33.3	97.7	(3.3)
Dumbarton Bridge						
Capital Outlay Support	-	56.0	56.0	18.6	55.7	(0.3)
Capital Outlay Support by BATA				6.0		
Capital Outlay Construction	-	92.7	92.7	8.4	96.8	4.1
Total	-	148.7	148.7	33.0	152.5	3.8
Subtotal Capital Outlay Support	1,433.1	280.6	1,713.7	1,437.1	1,840.5	126.8
Subtotal Capital Outlay	6,286.8	604.3	6,891.1	5,494.0	6,994.6	103.5
Subtotal Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Miscellaneous Program Costs	30.0	-	30.0	25.5	30.0	-
Subtotal Toll Bridge Seismic Retrofit Program	7,785.0	881.6	8,666.6	6,957.3	8,872.8	206.2
Net Programmatic Risks*	-	-	-	-	11.8	11.8
Program Contingency	900.0	(484.6)	415.4	-	197.4	(218.0)
Total Toll Bridge Seismic Retrofit Program ¹	8,685.0	397.0	9,082.0	6,957.3	9,082.0	-

¹ Figures may not sum up to totals due to rounding effects.

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions)

Bridge	AB 144 Baseline Budget	TBPOC Current Approved Budget	Expenditures to date and Encumbrances as of March 2011 see Note (1)	not yet spent or Encumbered as of March 2011	Total Forecast as of March 2011
a	b	c	d	e	f = d + e
Other Completed Projects					
Capital Outlay Support	144.9	144.6	144.6	-	144.6
Capital Outlay	472.6	471.9	472.6	(0.8)	471.8
Total	617.5	616.5	617.2	(0.8)	616.4
Richmond-San Rafael					
Capital Outlay Support	134.0	127.0	126.8	0.2	127.0
Capital Outlay	698.0	689.5	674.1	15.4	689.5
Project Reserves	82.0	-	-	-	-
Total	914.0	816.5	800.9	15.6	816.5
West Span Retrofit					
Capital Outlay Support	75.0	74.8	74.8	-	74.8
Capital Outlay	232.9	227.4	232.9	(5.5)	227.4
Total	307.9	302.2	307.7	(5.5)	302.2
West Approach					
Capital Outlay Support	120.0	118.0	118.3	0.2	118.5
Capital Outlay	309.0	350.7	345.3	(7.2)	338.1
Total	429.0	468.7	463.6	(7.0)	456.6
SFOBB East Span - Skyway					
Capital Outlay Support	197.0	181.2	181.3	(0.1)	181.2
Capital Outlay	1,293.0	1,254.1	1,372.8	(118.7)	1,254.1
Total	1,490.0	1,435.3	1,554.1	(118.8)	1,435.3
SFOBB East Span - SAS - Superstructure					
Capital Outlay Support	214.6	375.5	298.5	165.5	464.0
Capital Outlay	1,753.7	2,046.8	2,045.8	28.9	2,074.7
Total	1,968.3	2,422.3	2,344.3	194.4	2,538.7
SFOBB East Span - SAS - Foundations					
Capital Outlay Support	62.5	37.6	37.6	-	37.6
Capital Outlay	339.9	307.3	309.3	(2.0)	307.3
Total	402.4	344.9	346.9	(2.0)	344.9
Small YBI Projects					
Capital Outlay Support	10.6	10.6	10.2	0.4	10.6
Capital Outlay	15.6	15.6	15.5	0.2	15.7
Total	26.2	26.2	25.7	0.6	26.3
YBI Detour					
Capital Outlay Support	29.5	90.7	87.2	3.0	90.2
Capital Outlay	131.9	492.8	487.0	1.8	488.8
Total	161.4	583.5	574.2	4.8	579.0
YBI- Transition Structures					
Capital Outlay Support	78.7	106.4	43.2	71.1	114.3
Capital Outlay	299.4	206.3	127.8	125.3	253.1
Total	378.1	312.7	171.0	196.4	367.4

Appendix A-2: TBSRP AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions) Cont.

Contract a	AB 144 Baseline Budget b	TBPOC Current Approved Budget c	Expenditures to date and Encumbrances as of March 2011 see Note (1) d	Estimated Costs not yet spent or Encumbered as of March 2011 e	Total Forecast as of March 2011 f = d + e
Oakland Touchdown					
Capital Outlay Support	74.4	93.9	86.1	32.2	118.3
Capital Outlay	283.8	288.0	217.4	117.9	335.3
Total	358.2	381.9	303.5	150.1	453.6
East Span Other Small Projects					
Capital Outlay Support	212.3	206.5	198.1	8.5	206.6
Capital Outlay	170.8	170.8	118.3	36.3	154.6
Total	383.1	377.3	316.4	44.8	361.2
Existing Bridge Demolition					
Capital Outlay Support	79.7	59.9	0.4	61.0	61.4
Capital Outlay	239.2	239.1	-	233.0	233.0
Total	318.9	299.0	0.4	294.0	294.4
Antioch Bridge					
Capital Outlay Support	-	31.0	12.3	17.2	29.5
Capital Outlay Support by BATA			6.2	-	6.2
Capital Outlay	-	70.0	47.2	14.8	62.0
Total	-	101.0	65.7	32.0	97.7
Dumbarton Bridge					
Capital Outlay Support	-	56.0	19.9	29.8	49.7
Capital Outlay Support by BATA			6.0	-	6.0
Capital Outlay	-	92.7	55.2	41.6	96.8
Total	-	148.7	81.1	71.4	152.5
Miscellaneous Program Costs	30.0	30.0	25.5	4.5	30.0
Total Capital Outlay Support	1,463.2	1,743.7	1,477.0	393.5	1,870.5
Total Capital Outlay	6,321.8	6,923.0	6,521.2	481.1	7,002.3
Program Total ¹	7,785.0	8,666.7	7,998.2	874.6	8,872.8

(1). Funds allocated to project or contract for Capital Outlay and Support needs includes Capital Outlay Support total allocation for FY 06/07.

(2). BSA provided a distribution of program contingency in December 2004 based in Bechtel Infrastructure Corporation input.

This Column is subject to revision upon completion of Department's risk assessment update.

(3) Total Capital Outlay Support includes program indirect costs.

¹ Figures may not sum up to totals due to rounding effects.

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions)

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (03/2011) e = c + d	Cost to Date (02/2011) f	Cost Forecast (03/2011) g	At- Completion Variance h = g - e
San Francisco-Oakland Bay Bridge East Span Replacement Project						
East Span - SAS Superstructure						
Capital Outlay Support	214.6	160.9	375.5	292.3	464.0	88.5
Capital Outlay Construction	1,753.7	293.1	2,046.8	1,415.5	2,074.7	27.9
Total	1,968.3	454.0	2,422.3	1,707.8	2,538.7	116.4
SAS W2 Foundations						
Capital Outlay Support	10.0	(0.8)	9.2	9.2	9.2	-
Capital Outlay Construction	26.4	-	26.4	26.5	26.4	-
Total	36.4	(0.8)	35.6	35.7	35.6	-
YBI South/South Detour						
Capital Outlay Support	29.4	61.3	90.7	86.6	90.2	(0.5)
Capital Outlay Construction	131.9	360.9	492.8	459.2	488.8	(4.0)
Total	161.3	422.2	583.5	545.8	579.0	(4.5)
East Span - Skyway						
Capital Outlay Support	197.0	(15.8)	181.2	181.2	181.2	-
Capital Outlay Construction	1,293.0	(38.9)	1,254.1	1,237.0	1,254.1	-
Total	1,490.0	(54.7)	1,435.3	1,418.2	1,435.3	-
East Span - SAS E2/T1 Foundations						
Capital Outlay Support	52.5	(24.1)	28.4	28.4	28.4	-
Capital Outlay Construction	313.5	(32.6)	280.9	274.8	280.9	-
Total	366.0	(56.7)	309.3	303.2	309.3	-
YBI Transition Structures (see notes below)						
Capital Outlay Support	78.7	27.7	106.4	41.9	114.3	7.9
Capital Outlay Construction	299.3	(93.0)	206.3	21.1	253.1	46.8
Total	378.0	(65.3)	312.7	63.0	367.4	54.7
* YBI- Transition Structures						
Capital Outlay Support			16.4	16.4	16.5	0.1
Capital Outlay Construction			-	-	-	-
Total			16.4	16.4	16.5	0.1
* YBI- Transition Structures Contract No. 1						
Capital Outlay Support			57.0	18.6	64.6	7.6
Capital Outlay Construction			144.0	21.1	185.4	41.4
Total			201.0	39.8	250.0	49.0
* YBI- Transition Structures Contract No. 2						
Capital Outlay Support			32.0	6.9	32.2	0.2
Capital Outlay Construction			59.0	-	64.4	5.4
Total			91.0	6.9	96.6	5.6
* YBI- Transition Structures Contract No. 3 Landscape						
Capital Outlay Support			1.0	-	1.0	-
Capital Outlay Construction			3.3	-	3.3	-
Total			4.3	-	4.3	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions) Cont.

Contract a	AB 144 / SB 66 Budget (07/2005) c	Approved Changes d	Current Approved Budget (03/2011) e = c + d	Cost to Date (02/2011) f	Cost Forecast (03/2011) g	At- Completion Variance h = g - e
Oakland Touchdown (see notes below)						
Capital Outlay Support	74.4	19.5	93.9	81.9	118.3	24.4
Capital Outlay Construction	283.8	4.2	288.0	210.0	335.3	47.3
Total	358.2	23.7	381.9	291.9	453.6	71.7
*OTD Prior-to-Split Costs						
Capital Outlay Support			21.7	20.1	21.7	-
Capital Outlay Construction			-	-	-	-
Total			21.7	20.1	21.7	-
*OTD Submarine Cable						
Capital Outlay Support			0.9	0.9	0.9	-
Capital Outlay Construction			9.6	7.9	9.6	-
Total			10.5	8.8	10.5	-
*OTD No.1 (Westbound)						
Capital Outlay Support			47.3	50.6	50.5	3.2
Capital Outlay Construction			212.0	202.2	204.4	(7.6)
Total			259.3	252.8	254.9	(4.4)
*OTD No.2 (Eastbound)						
Capital Outlay Support			22.5	9.6	28.7	6.2
Capital Outlay Construction			62.0	-	65.9	3.9
Total			84.5	9.6	94.6	10.1
* Oakland Detour						
Capital Outlay Support			-	-	15.0	15.0
Capital Outlay Construction			-	-	51.0	51.0
Total			-	-	66.0	66.0
*OTD Electrical Systems						
Capital Outlay Support			1.5	0.8	1.5	-
Capital Outlay Construction			4.4	-	4.4	-
Total			5.9	0.8	5.9	-
Existing Bridge Demolition						
Capital Outlay Support	79.7	(19.8)	59.9	0.4	61.4	1.5
Capital Outlay Construction	239.2	(0.1)	239.1	-	233.0	(6.1)
Total	318.9	(19.9)	299.0	0.4	294.4	(4.6)
YBI/SAS Archeology						
Capital Outlay Support	1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction	1.1	-	1.1	1.1	1.1	-
Total	2.2	-	2.2	2.2	2.2	-
YBI - USCG Road Relations						
Capital Outlay Support	3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction	3.0	-	3.0	2.8	3.0	-
Total	6.0	-	6.0	5.5	6.0	-
YBI - Substation and Viaduct						
Capital Outlay Support	6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction	11.6	-	11.6	11.3	11.6	-
Total	18.1	-	18.1	17.7	18.1	-

Appendix B: TBSRP (SFOBB East Span Only) AB 144/SB 66 Baseline Budget, Forecasts and Expenditures through March 31, 2011 (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Oakland Geofill						
Capital Outlay Support	2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction	8.2	-	8.2	8.2	8.2	-
Total	10.7	-	10.7	10.7	10.7	-
Pile Installation Demonstration Project						
Capital Outlay Support	1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction	9.3	(0.1)	9.2	9.2	9.3	-
Total	11.1	(0.1)	11.0	11.0	11.1	-
Stormwater Treatment Measures						
Capital Outlay Support	6.0	2.2	8.2	8.2	8.2	-
Capital Outlay Construction	15.0	3.3	18.3	16.7	18.3	-
Total	21.0	5.5	26.5	24.9	26.5	-
Right-of-Way and Environmental Mitigation						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay & Right-of-Way	72.4	-	72.4	51.3	80.4	8.0
Total	72.4	-	72.4	51.3	80.4	8.0
Sunk Cost - Existing East Span Retrofit						
Capital Outlay Support	39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction	30.8	-	30.8	30.8	30.8	-
Total	70.3	-	70.3	70.3	70.3	-
Other Capital Outlay Support						
Environmental Phase	97.7	-	97.7	97.8	97.7	-
Pre-Split Project Expenditures	44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs	20.0	(8.0)	12.0	3.2	12.0	-
Total	162.6	(8.0)	154.6	145.9	154.6	-
Subtotal Capital Outlay Support	959.3	203.0	1,162.3	930.0	1,284.2	121.9
Subtotal Capital Outlay Construction	4,492.2	496.8	4,989.0	3,775.5	5,109.0	120.0
Other Budgeted Capital	35.1	(3.3)	31.8	0.7	7.7	(24.1)
Total SFOBB East Span Replacement Project ¹	5,486.6	696.5	6,183.1	4,706.2	6,400.9	217.8

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project						
New Bridge						
Capital Outlay Support						
BATA Funding	84.9	6.9	91.8	91.9	91.9	0.1
Non-Bata Funding	-	0.1	0.1	0.1	0.1	-
Subtotal	84.9	7.0	91.9	92.0	92.0	0.1
Capital Outlay Construction			-			-
BATA Funding	661.9	94.6	756.5	753.8	756.5	-
Non-Bata Funding	10.1	-	10.1	10.1	10.1	-
Subtotal	672.0	94.6	766.6	763.9	766.6	-
Total	756.9	101.6	858.5	855.9	858.6	0.1
I-680/I-780 Interchange Reconstruction						
Capital Outlay Support						
BATA Funding	24.9	5.2	30.1	30.1	30.1	-
Non-Bata Funding	1.4	5.2	6.6	6.3	6.6	-
Subtotal	26.3	10.4	36.7	36.4	36.7	-
Capital Outlay Construction						
BATA Funding	54.7	26.9	81.6	77.1	81.6	-
Non-Bata Funding	21.6	-	21.6	21.7	21.7	0.1
Subtotal	76.3	26.9	103.2	98.8	103.3	0.1
Total	102.6	37.3	139.9	135.2	140.0	0.1
I-680/Marina Vista Interchange Reconstruction						
Capital Outlay Support	18.3	1.8	20.1	20.2	20.2	0.1
Capital Outlay Construction	51.5	4.9	56.4	56.1	56.4	-
Total	69.8	6.7	76.5	76.3	76.6	0.1
New Toll Plaza and Administration Building						
Capital Outlay Support	11.9	3.8	15.7	15.7	15.7	-
Capital Outlay Construction	24.3	2.0	26.3	25.1	26.3	-
Total	36.2	5.8	42.0	40.8	42.0	-
Existing Bridge & Interchange Modifications						
Capital Outlay Support						
BATA Funding	4.3	13.5	17.8	17.9	17.9	0.1
Non-Bata Funding	-	0.9	0.9	0.8	0.9	-
Subtotal	4.3	14.4	18.7	18.7	18.8	0.1
Capital Outlay Construction						
BATA Funding	17.2	32.8	50.0	37.1	50.0	-
Non-Bata Funding	-	9.5	9.5	-	9.5	-
Subtotal	17.2	42.3	59.5	37.1	59.5	-
Total	21.5	56.7	78.2	55.8	78.3	0.1
Other Contracts						
Capital Outlay Support	11.4	(2.3)	9.1	9.4	9.4	0.3
Capital Outlay Construction	20.3	3.3	23.6	20.3	23.6	-
Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Total	52.1	0.9	53.0	46.7	53.3	0.3

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
New Benicia-Martinez Bridge Project continued...						
Subtotal BATA Capital Outlay Support	155.7	28.9	184.6	185.2	185.2	0.6
Subtotal BATA Capital Outlay Construction	829.9	164.5	994.4	969.5	994.4	-
Subtotal Capital Outlay Right-of-Way	20.4	(0.1)	20.3	17.0	20.3	-
Subtotal Non-BATA Capital Outlay Support	1.4	6.2	7.6	7.2	7.6	-
Subtotal Non-BATA Capital Outlay Construction	31.7	9.5	41.2	31.8	41.3	0.1
Project Reserves	20.8	3.6	24.4	-	23.7	(0.7)
Total New Benicia-Martinez Bridge Project						
	1,059.9	212.6	1,272.5	1,210.7	1,272.5	-
Notes:	Includes EA's 00601_,00603_,00605_,00606_,00608_,00609_,0060A_,0060C_,0060E_,0060F_,0060G_,0060H_, and all Project Right-of-Way					
Carquinez Bridge Replacement Project						
New Bridge						
Capital Outlay Support	60.5	(0.3)	60.2	60.2	60.2	-
Capital Outlay Construction	253.3	2.7	256.0	255.9	256.0	-
Total	313.8	2.4	316.2	316.1	316.2	-
Crockett Interchange Reconstruction						
Capital Outlay Support	32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction	73.9	(1.9)	72.0	71.9	72.0	-
Total	105.9	(2.0)	103.9	103.8	103.9	-
Existing 1927 Bridge Demolition						
Capital Outlay Support	16.1	(0.5)	15.6	15.7	15.7	0.1
Capital Outlay Construction	35.2	-	35.2	34.8	35.2	-
Total	51.3	(0.5)	50.8	50.5	50.9	0.1
Other Contracts						
Capital Outlay Support	15.8	1.2	17.0	16.4	17.0	-
Capital Outlay Construction	18.8	(1.2)	17.6	16.3	17.6	-
Capital Outlay Right-of-Way	10.5	(0.1)	10.4	9.9	10.4	-
Total	45.1	(0.1)	45.0	42.6	45.0	-
Subtotal BATA Capital Outlay Support						
	124.4	0.3	124.7	124.2	124.8	0.1
Subtotal BATA Capital Outlay Construction	381.2	(0.4)	380.8	378.9	380.8	-
Subtotal Capital Outlay Right-of-Way	10.5	(0.1)	10.4	9.9	10.4	-
Project Reserves	12.1	(9.8)	2.3	-	2.2	(0.1)
Total Carquinez Bridge Replacement Project ¹						
	528.2	(10.0)	518.2	513.0	518.2	-
Notes	Other Contracts include EA's 01301_,01302_,01303_,01304_,01305_,01306_,01307_,01308_,01309_,0130A_,0130C_,0130D_,0130F_,0130G_,0130H_,0130J_,00453_,00493_,04700_,00607_,2A270_,and 29920_ and all Project Right-of-Way					

¹ Figures may not sum up to totals due to rounding effects.

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
Richmond-San Rafael Bridge Trestle. Fender, and Deck Joint Rehabilitation						
Capital Outlay Support						
BATA Funding	2.2	(0.8)	1.4	1.4	1.4	-
Non-BATA Funding	8.6	1.8	10.4	10.4	10.4	-
Subtotal	10.8	1.0	11.8	11.8	11.8	-
Capital Outlay Construction						
BATA Funding	40.2	(6.8)	33.4	33.3	33.4	-
Non-BATA Funding	51.1	-	51.1	51.1	51.1	-
Subtotal	91.3	(6.8)	84.5	84.4	84.5	-
Project Reserves	-	0.8	0.8	-	0.8	-
Total	102.1	(5.0)	97.1	96.2	97.1	-
Richmond-San Rafael Bridge Deck Overlay Rehabilitation						
Capital Outlay Support						
BATA Funding	4.0	(0.7)	3.3	3.3	3.3	-
Non-BATA Funding	4.0	(4.0)	-	-	-	-
Subtotal	8.0	(4.7)	3.3	3.3	3.3	-
Capital Outlay Construction	16.9	(0.6)	16.3	16.3	16.3	-
Project Reserves	0.1	0.3	0.4	-	0.4	-
Total	25.0	(5.0)	20.0	19.6	20.0	-
Richmond Parkway Project (RM 1 Share Only)						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	5.9	-	5.9	4.3	5.9	-
Total	5.9	-	5.9	4.3	5.9	-
San Mateo-Hayward Bridge Widening						
Capital Outlay Support	34.6	(0.5)	34.1	34.1	34.1	-
Capital Outlay Construction	180.2	(6.1)	174.1	174.1	174.1	-
Capital Outlay Right-of-Way	1.5	(0.9)	0.6	0.6	0.6	-
Project Reserves	1.5	(0.5)	1.0	-	1.0	-
Total	217.8	(8.0)	209.8	208.8	209.8	-
I-880/SR-92 Interchange Reconstruction						
Capital Outlay Support	28.8	34.6	63.4	57.8	63.4	-
Capital Outlay Construction						
BATA Funding	85.2	66.2	151.4	118.5	151.4	-
Non-BATA Funding	9.6	-	9.6	-	9.6	-
Subtotal	94.8	66.2	161.0	118.5	161.0	-
Capital Outlay Right-of-Way	9.9	7.0	16.9	12.4	16.9	-
Project Reserves	0.3	3.4	3.7	-	3.7	-
Total	133.8	111.2	245.0	188.7	245.0	-
Bayfront Expressway Widening						
Capital Outlay Support	8.6	(0.2)	8.4	8.3	8.4	-
Capital Outlay Construction	26.5	(1.5)	25.0	24.9	25.0	-
Capital Outlay Right-of-Way	0.2	-	0.2	0.2	0.2	-
Project Reserves	0.8	(0.3)	0.5	-	0.5	-
Total	36.1	(2.0)	34.1	33.4	34.1	-

Appendix C: Regional Measure 1 Program Cost Detail (\$ Millions) Cont.

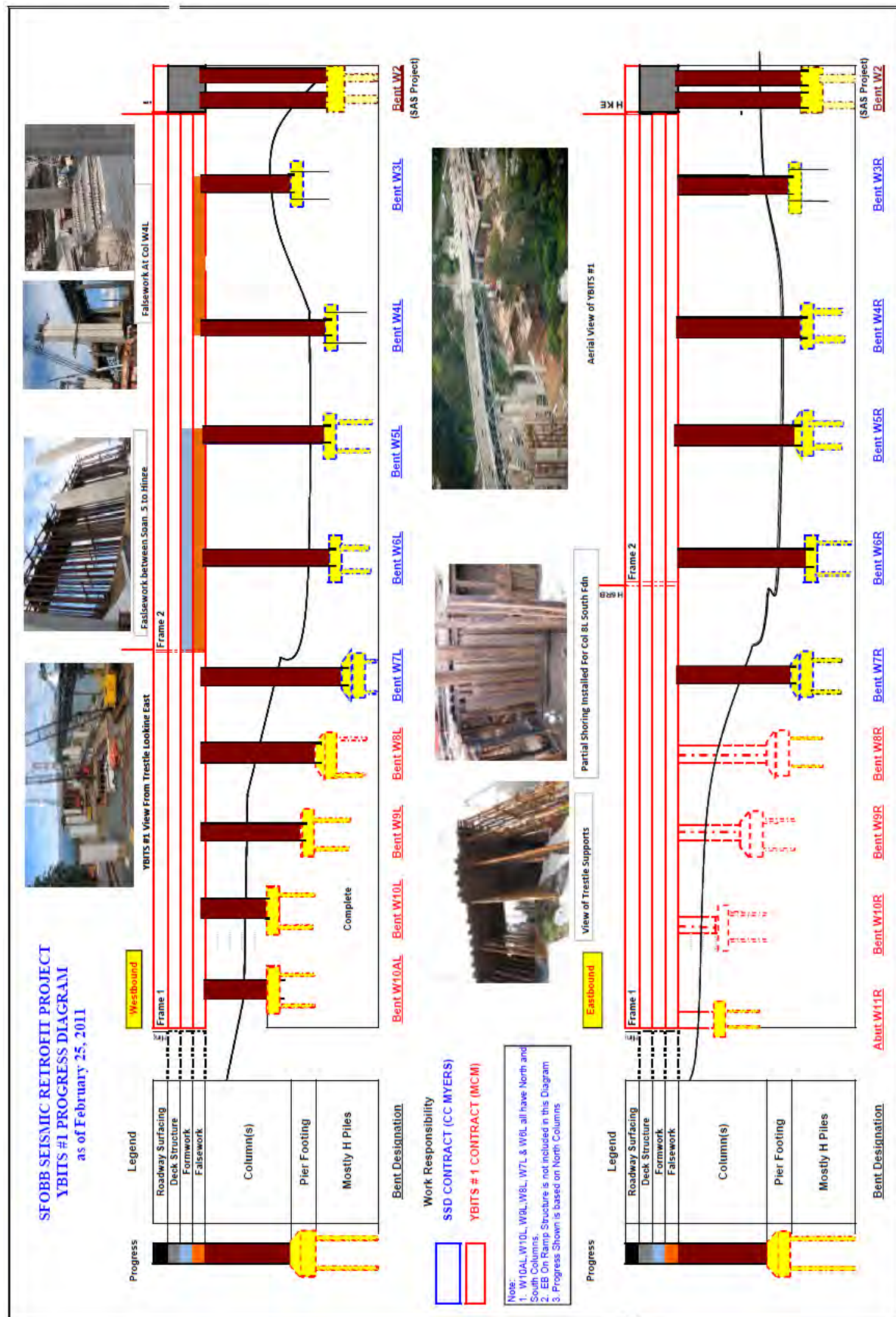
Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (03/2011)	Cost to Date (02/2011)	Cost Forecast (03/2011)	At- Completion Variance
a	c	d	e = c + d	f	g	h = g - e
US 101/University Avenue Interchange Modification						
Capital Outlay Support	-	-	-	-	-	-
Capital Outlay Construction	3.8	-	3.8	3.7	3.8	-
Total	3.8	-	3.8	3.7	3.8	-
Subtotal BATA Capital Outlay Support	358.3	61.6	419.9	414.3	420.6	0.7
Subtotal BATA Capital Outlay Construction	1,569.8	215.3	1,785.1	1,723.5	1,785.1	-
Subtotal Capital Outlay Right-of-Way	42.5	5.9	48.4	40.1	48.4	-
Subtotal Non-BATA Capital Outlay Support	14.0	4.0	18.0	17.6	18.0	-
Subtotal Non-BATA Capital Outlay Construction	92.4	9.5	101.9	82.9	102.0	0.1
Project Reserves	35.6	(2.5)	33.1	-	32.3	(0.8)
Total RM1 Program	2,112.6	293.8	2,406.4	2,278.4	2,406.4	-
Notes:						
1 Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U_ and 04157_						
2 San Mateo-Hayward Bridge Widening includes EA's 00305_,04501_,04503_,04504_,04504_,04505_,04506_,04507_,04508_,04509_,27740_,27790_,04860_						



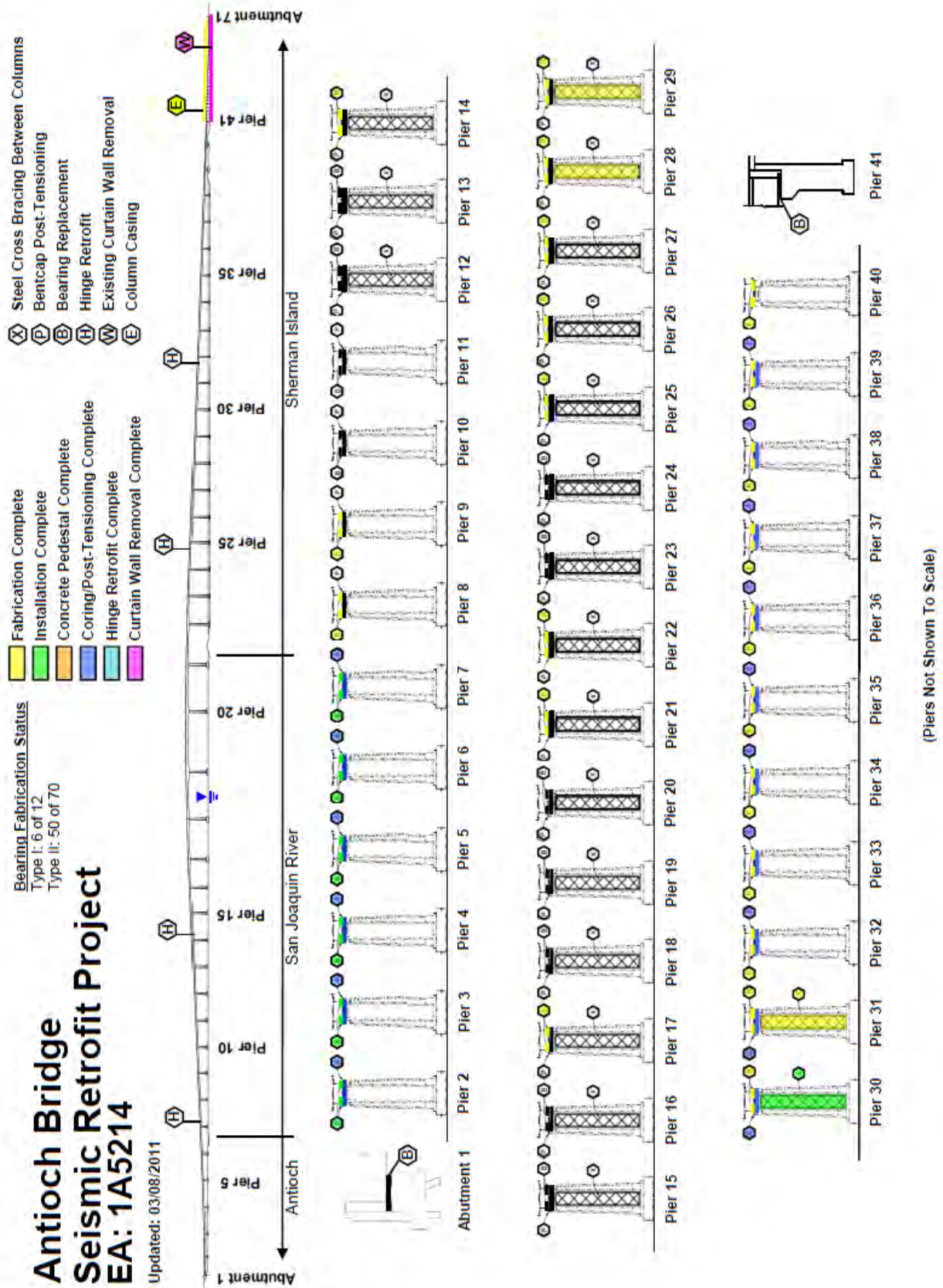
YBITS #1 Falsework

Appendix D: Progress Diagrams

Yerba Buena Island Transition Structures



Appendix D: Progress Diagrams (cont.) Antioch Bridge







Roadway Box 11 Westbound Being Transported for Installation

Appendix E: Project Progress Photographs

Self-Anchored Suspension Bridge Fabrication



North and South Tower Head Assembly in Bay 10



Blast and Paint Deck Panel 14 West



14 East and West Deck Plate Super Panels Complete



Lift 6 Tower Head - Primed Surfaces

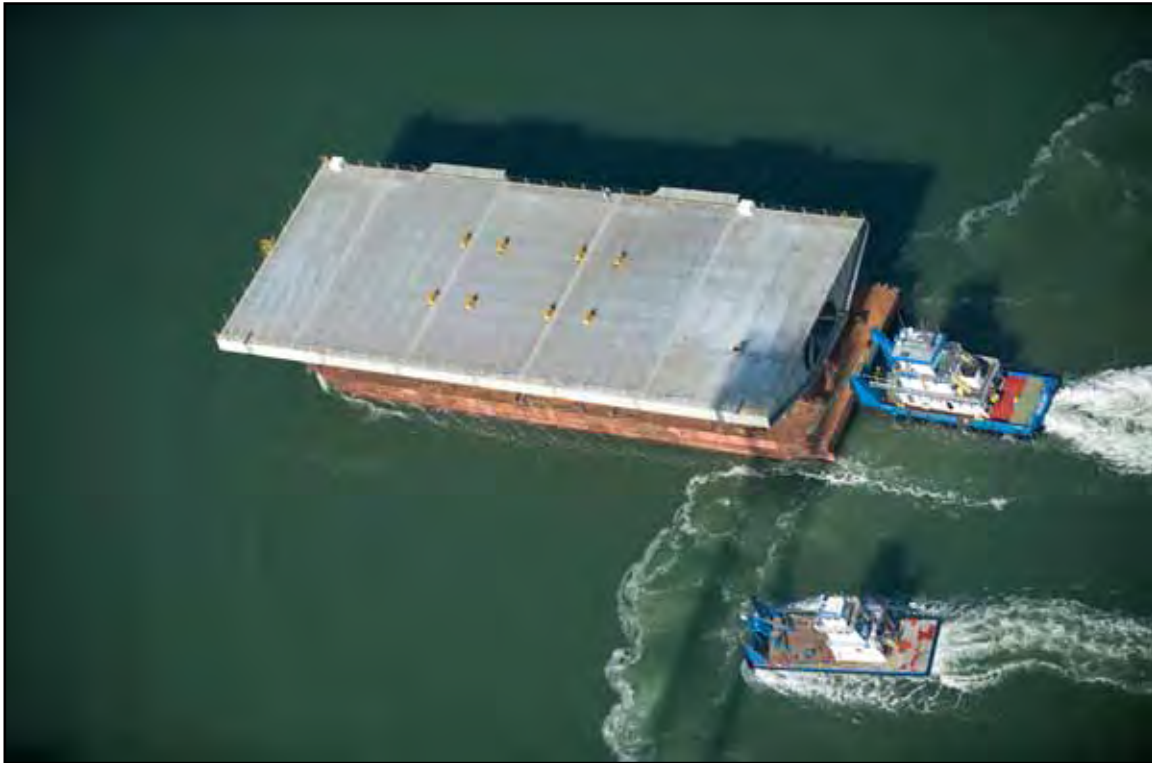




First Leg of Tower Lift Four

Appendix E: Project Progress Photographs

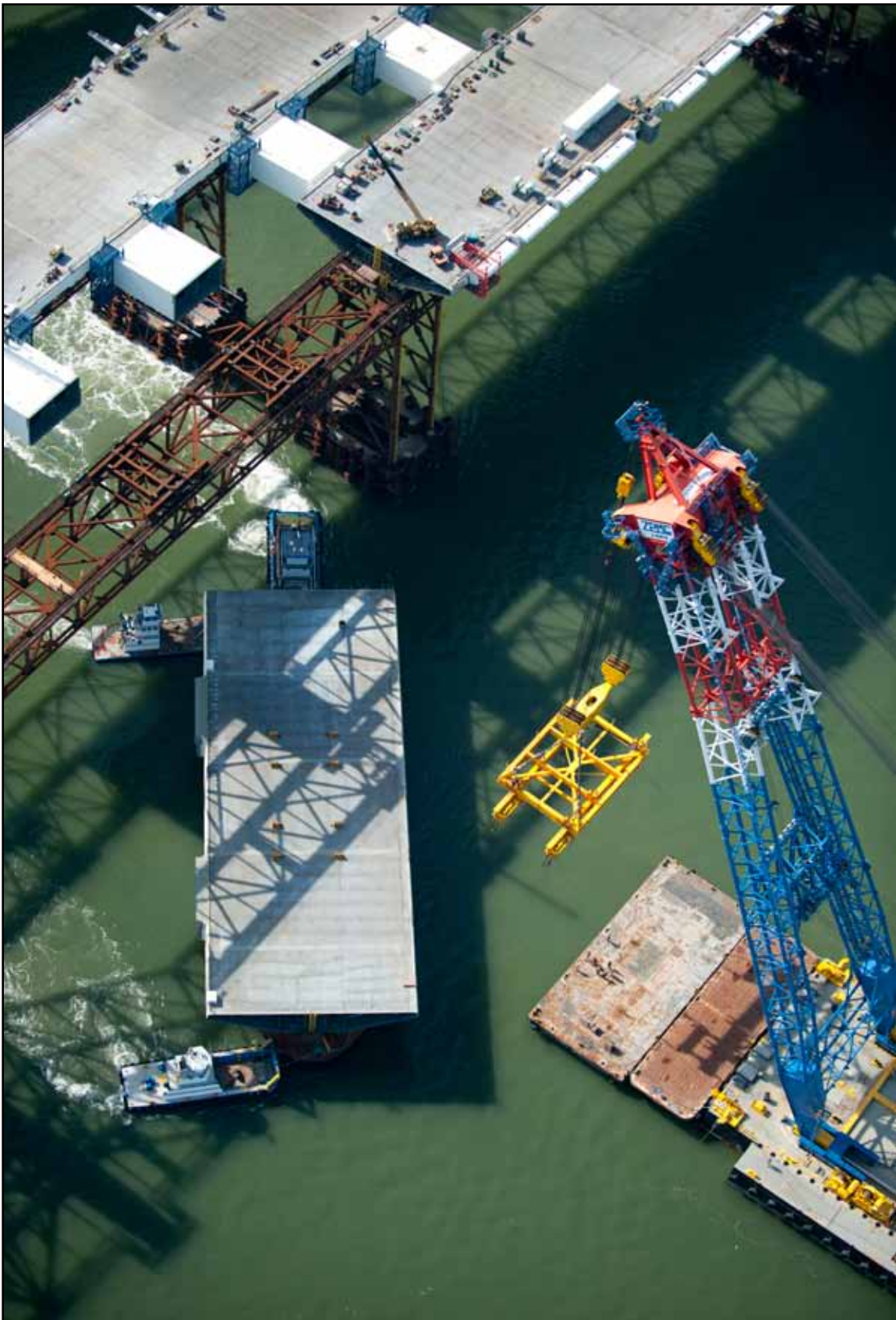
Self-Anchored Suspension Bridge Field Work



Roadway Box 11 Eastbound Being Directed by Tugboat toward Shear-Leg Crane Barge



Assembling the Tower Saddle



Roadway Box 11 Westbound Being Installed by Shear-Leg Crane Barge

Appendix E: Project Progress Photographs

92/880 Interchange



Calaroga Bridge Construction in Progress



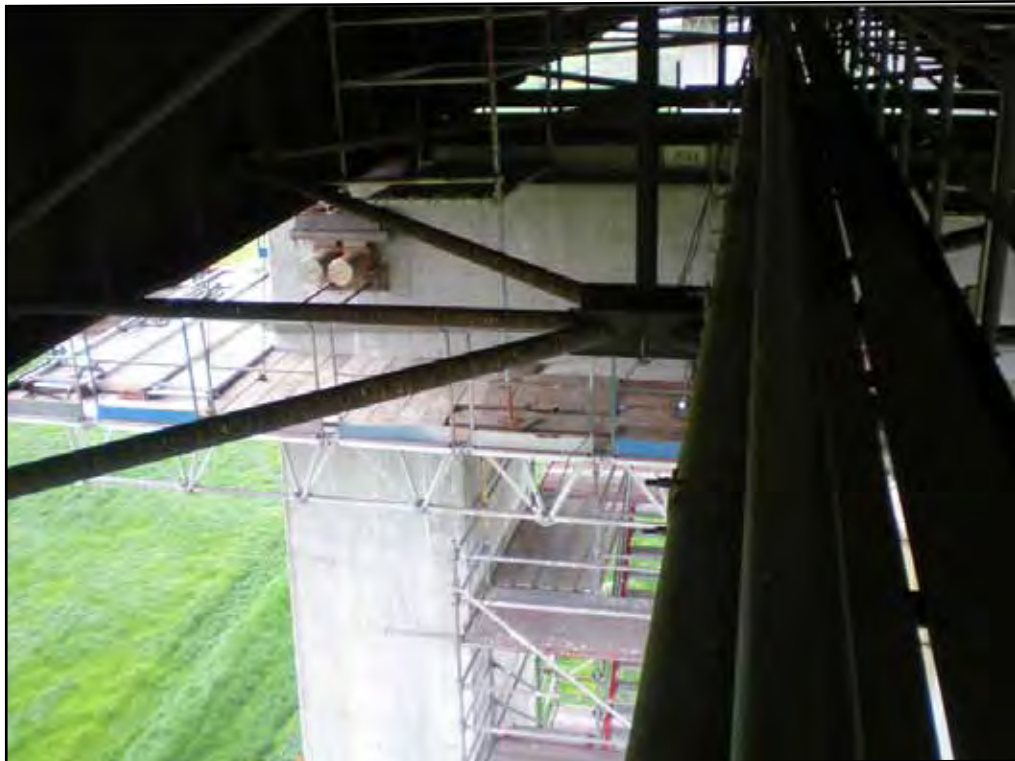
New J6 Alignment Opened to Traffic



Ground Improvement Work in Progress on J3 Line

Appendix E: Project Progress Photographs

Antioch Bridge



Jacking Pins at Pier 33



Sole Plate Prior to Stainless Steel Sheet Installation

Appendix E: Project Progress Photographs

Dumbarton Bridge



Series of Bent Cap Extensions Ready for Casting of Concrete



First Longitudinal Restraining Brackets Installation at Pier 5

Appendix E: Project Progress Photographs

Oakland Touchdown Temporary Detour





BURMA ROAD
(PAVED)

MOLE
SUBSTATION

MAINT. RD.

E24

E25

E26

E27

E28

E29

E33

E35

E23

Appendix F: Glossary of Terms

Glossary of Terms

AB144/SB 66 BUDGET: The planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

BATA BUDGET: The planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

APPROVED CHANGES: For cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

CURRENT APPROVED BUDGET: The sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

COST TO DATE: The actual expenditures incurred by the program, project or contract as of the month and year shown.

COST FORECAST: The current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

AT COMPLETION VARIANCE or VARIANCE (cost): The mathematical difference between the Cost Forecast and the Current Approved Budget.

AB 144/SB 66 PROJECT COMPLETE BASELINE: The planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

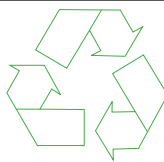
BATA PROJECT COMPLETE BASELINE: The planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

PROJECT COMPLETE CURRENT APPROVED SCHEDULE: The sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

PROJECT COMPLETE SCHEDULE FORECAST: The current projected date for the completion of the program, project, or contract.

SCHEDULE VARIANCE or VARIANCE (schedule): The mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

% COMPLETE: % Complete is based on an evaluation of progress on the project, expenditures to date, and schedule.



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The information in this report is provided in accordance with California Government code Section 755. This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production is \$1,574,873.73.



Final Leg of the Lift

ver
in
and



Fourth Tower Lift, Cross Bracing In Progress



TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Ali Banani, TBSRP COS Project Controls Manager, CT
Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. - 5a
Program Issues
Item- TBSRP Capital Outlay Support (COS) Update and FY 2011-12
Allocation Request

Recommendation:
APPROVAL

Cost Impacts:

No impact, current allocation is within the program COS budget.

Schedule Impacts:

N/A

Discussion

Staff requests TBPOC approval of the FY 2011-12 COS Allocation Request of \$109.7 million for the program.

FY 2010-11 COS Update

For FY 2010-11, the TBPOC approved a TBSRP program COS allocation of \$133.1 M. Based on expenditures through February 2011, staff is projecting a slight overrun of \$0.5 million in the program. A \$4.7 million projected overrun on the East Span for this year is due to increased inspection costs in support of SAS CCO 160 and for design and construction support for the Oakland Detour work. Savings on the Antioch and Dumbarton retrofits and overall reductions in state staffing on the East Span offsets most of the overruns.

Table 1 - FY 2010-11 COS Allocation and Forecast
\$ In millions

Project	FY 2010-11 COS Allocation	FY 2010-11 COS Forecast	Difference
SFOBB East Span Replacement	\$115.0	\$119.7	+4.7
Antioch Bridge Retrofit	\$7.2	\$6.7	-0.5
Dumbarton Bridge Retrofit	\$10.9	\$7.2	-3.7
TBSRP Total	\$133.1	\$133.6	+0.5

FY 2011-12 COS Allocation Request

For next fiscal year, the Department is requesting an allocation of \$109.7 million for the entire TBSRP program, including the Dumbarton and Antioch Bridges and the East Span. On the East Span, significant reductions in METS expenditures are anticipated with completion of fabrication in China. Construction COS is expected to decrease on the Antioch Bridge as works is completed late this year and increase on the Dumbarton Bridge retrofit as construction ramps up through the year. With TBPOC approval, the Department will forward the allocation request for BATA approval in June 2011. Below is the COS request by project as compared to last year:

Table 2 - FY 2011-12 COS Allocation Request
\$ In millions

Project	FY 2010-11 COS Forecast	FY 2011-12 COS Request	Difference
SFOBB East Span Replacement	\$119.7	\$93.6	-26.1
Antioch Bridge Retrofit	\$6.7	\$4.4	-2.3
Dumbarton Bridge Retrofit	\$7.2	\$11.7	+4.5
TBSRP Total	\$133.6	\$109.7	-23.9

Forecast at Completion

The FY 2011-12 allocation of COS funds is within current COS budgets at both the program and project level. No budget change will be needed to make the allocations. Overall, based on our risk management reviews, there continues to be significant COS risk on the East Span project, primarily from delays risks. While our acceleration change orders appear to be successfully moving the East Span and program forward, risk management must continue to track the possibility for challenges and delays that may impact the program and the COS budget.

Table 3 – COS Budget and Forecast at Completion
\$ In millions

Project	COS Allocation Budget	COS Forecast 4 th Quarter 2011	Difference
SFOBB East Span Replacement	\$1,162	\$1,282	+120
Antioch Bridge Retrofit	\$31.0	\$35.7	+4.7
Dumbarton Bridge Retrofit	\$56.0	\$56.0	-0.0

Attachment(s):

COS Update Presentation

COS Update

April 2011



THE SAN FRANCISCO-OAKLAND
BAY BRIDGE
SEISMIC SAFETY PROJECTS

CALTRANS

BAY AREA TOLL AUTHORITY

CALIFORNIA TRANSPORTATION COMMISSION

Toll Bridge Seismic Retrofit Program

Toll Bridge Seismic Retrofit Program

Agenda

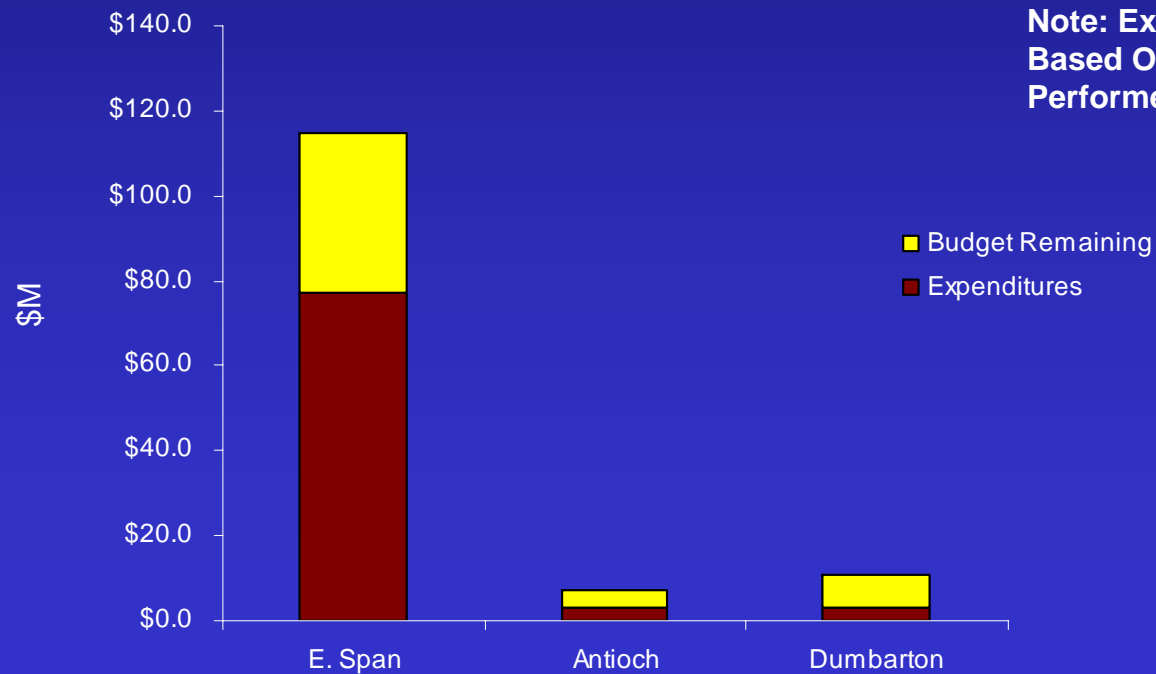
- **FY 10-11 Budget Status**
- **Proposed FY 11-12 Budget**
- **Forecast At Completion**

Toll Bridge Seismic Retrofit Program

FY 10-11 Budget Status

Expenditure Summary

	SFOBB	Antioch	Dumbarton	Total
Budget	\$115.0 M	\$ 7.2 M	\$10.9 M	\$133.1 M
Expenditures Thru Feb 2011	\$ 77.2 M	\$ 3.3 M	\$ 3.3 M	\$ 83.8 M
Remaining Budget	\$ 37.8 M	\$ 3.9 M	\$ 7.6 M	\$ 49.3 M

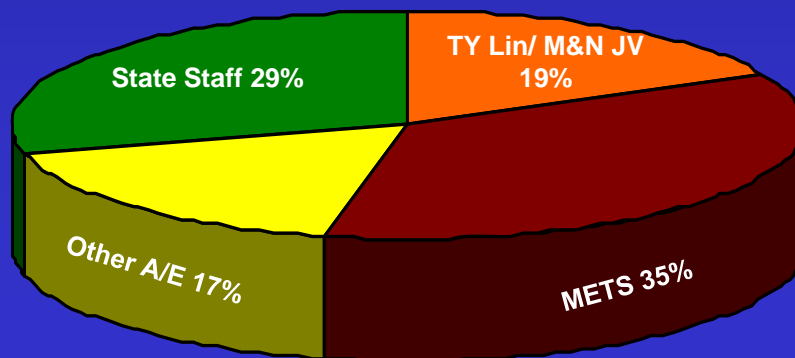


Note: Expenditures Are An Estimate Based On A/E Invoices For Services Performed Thru Feb 2011

SFOBB Expenditure Analysis

Category	Budget	FY Expenditures Thru Feb 2011	FY Forecast	Budget Variance	
State Staff	\$39.7 M	\$22.6 M	\$35.0 M	- \$4.7 M	
TY Lin/M&N JV	\$22.6 M	\$13.5 M	\$23.1 M	+\$0.5 M	OTD Temp Detour
METS A/E	\$33.6 M	\$27.6 M	\$41.5 M	+\$7.9 M	Enhanced Fab. Inspection To Support CCO 160
Other A/E	\$19.1 M	\$13.5 M	\$20.1 M	+\$1.0 M	OTD Temp Detour
Total	\$115.0 M	\$77.2 M	\$119.7 M	+\$4.7 M	

E. Span Expenditure Composition



Antioch/ Dumbarton Expenditure Analysis

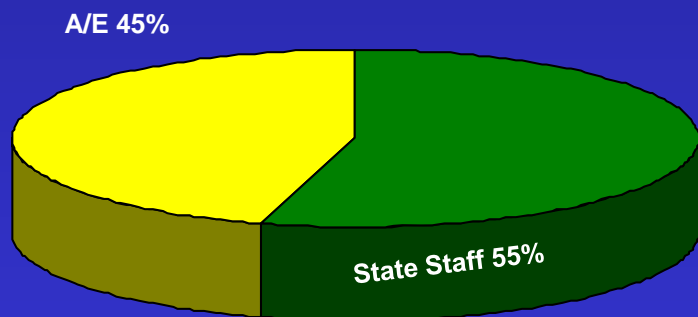
Antioch

Category	FY Budget	Expenditures Thru 2/2011	FY Forecast	Budget Variance
State Staff	\$4.8 M	\$1.8 M	\$3.9 M	- \$0.9 M
A/E	\$2.4 M	\$1.5 M	\$2.8 M	\$0.4 M
Total	\$7.2 M	\$3.3 M	\$6.7 M	-\$0.5 M

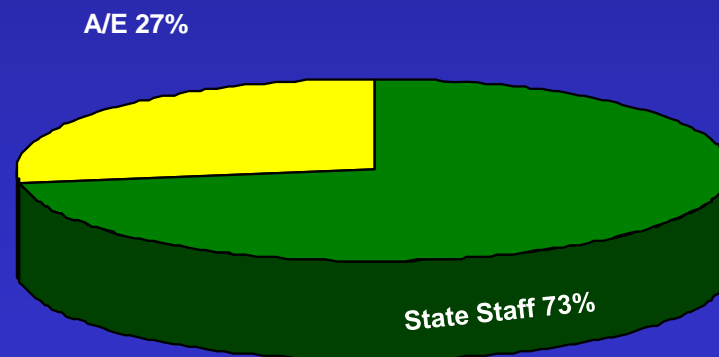
Dumbarton

Category	FY Budget	Expenditures Thru 2/2011	FY Forecast	Budget Variance
State Staff	\$7.5 M	\$2.4 M	\$4.7 M	-\$2.8 M
A/E	\$3.4 M	\$0.9 M	\$2.5 M	-\$0.9 M
Total	\$10.9 M	\$3.3 M	\$7.2 M	-\$3.7 M

**Antioch
Expenditure Composition**

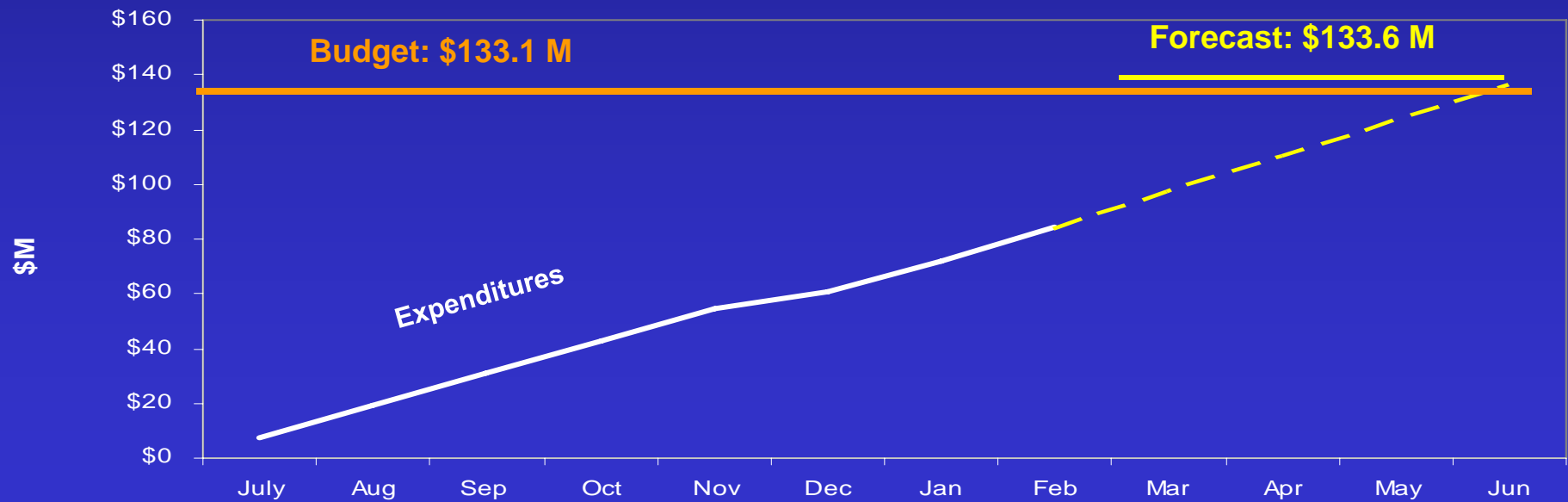


**Dumbarton
Expenditure Composition**



FY Forecast

	FY Budget	Expenditures Thru 2/ 2011	FY Forecast	Budget Variance
SFOBB	\$115.0 M	\$77.2 M	\$119.7 M	+\$4.7 M
Antioch	\$7.2 M	\$3.3 M	\$6.7 M	-\$0.5 M
Dumbarton	\$10.9 M	\$3.3 M	\$7.2 M	-\$3.7 M
Total	\$133.1 M	\$83.8 M	\$133.6 M	+\$0.5 M



Toll Bridge Seismic Retrofit Program

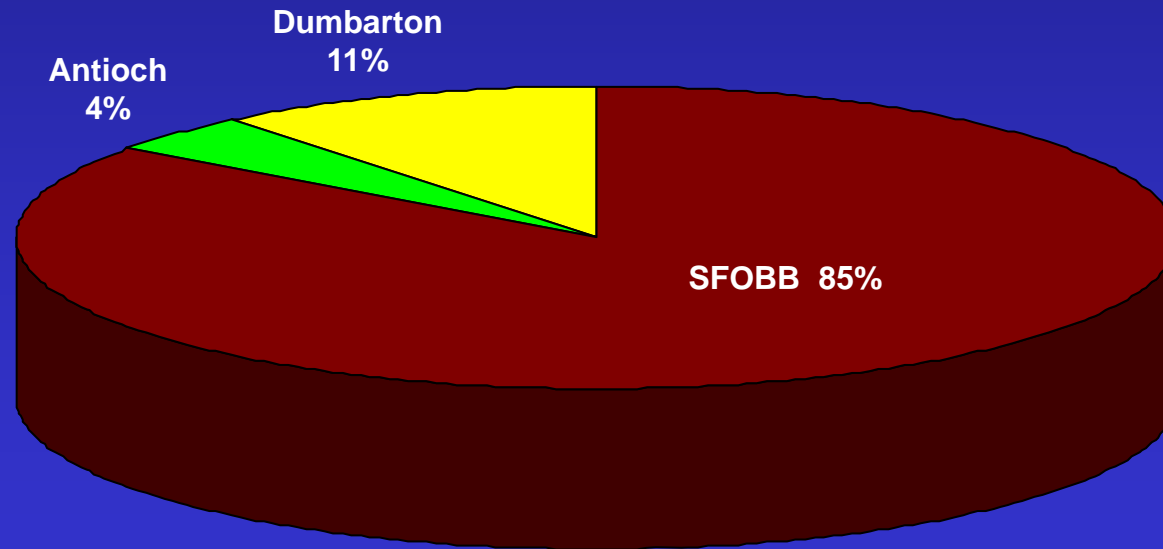
Proposed Budget For FY 11-12

Assumptions

1. State Overhead Rate of 29.75% Assumed For FY 11-12
(Same as in FY 10-11)
2. METS Estimate Includes 15% Contingency For
Unanticipated Delays/ Complexities
(~ \$3 Million)
3. No Reduction in TY Lin/M&N JV Staffing
4. Cost For OTD Detour Included In Budget For OTD #2
(~ \$4 Million)

FY 11-12 Proposed Budget

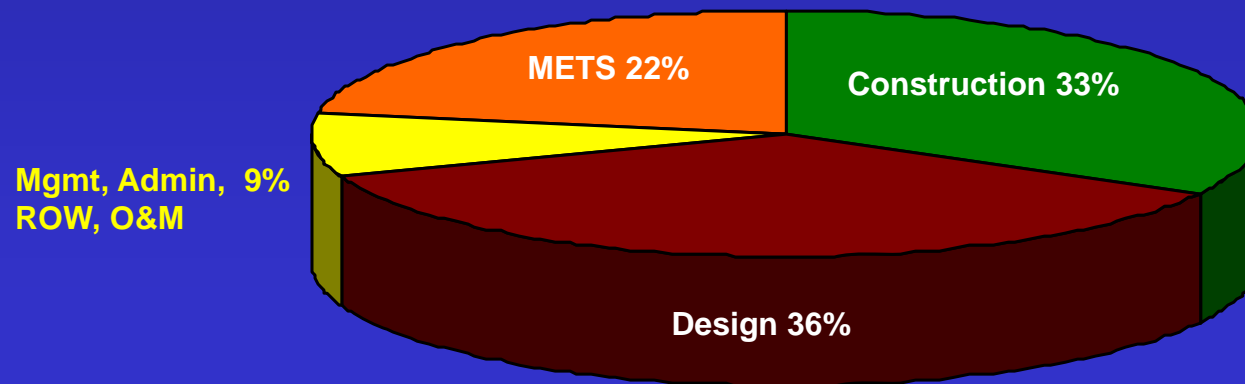
	SFOBB	Antioch	Dumbarton	Total
State	\$ 36.4 M	\$ 2.5 M	\$ 5.4 M	\$44.3 M
A/E	\$ 57.2 M	\$ 1.9 M	\$ 6.3 M	\$65.4 M
Total	\$ 93.6 M	\$ 4.4 M	\$11.7 M	\$109.7 M



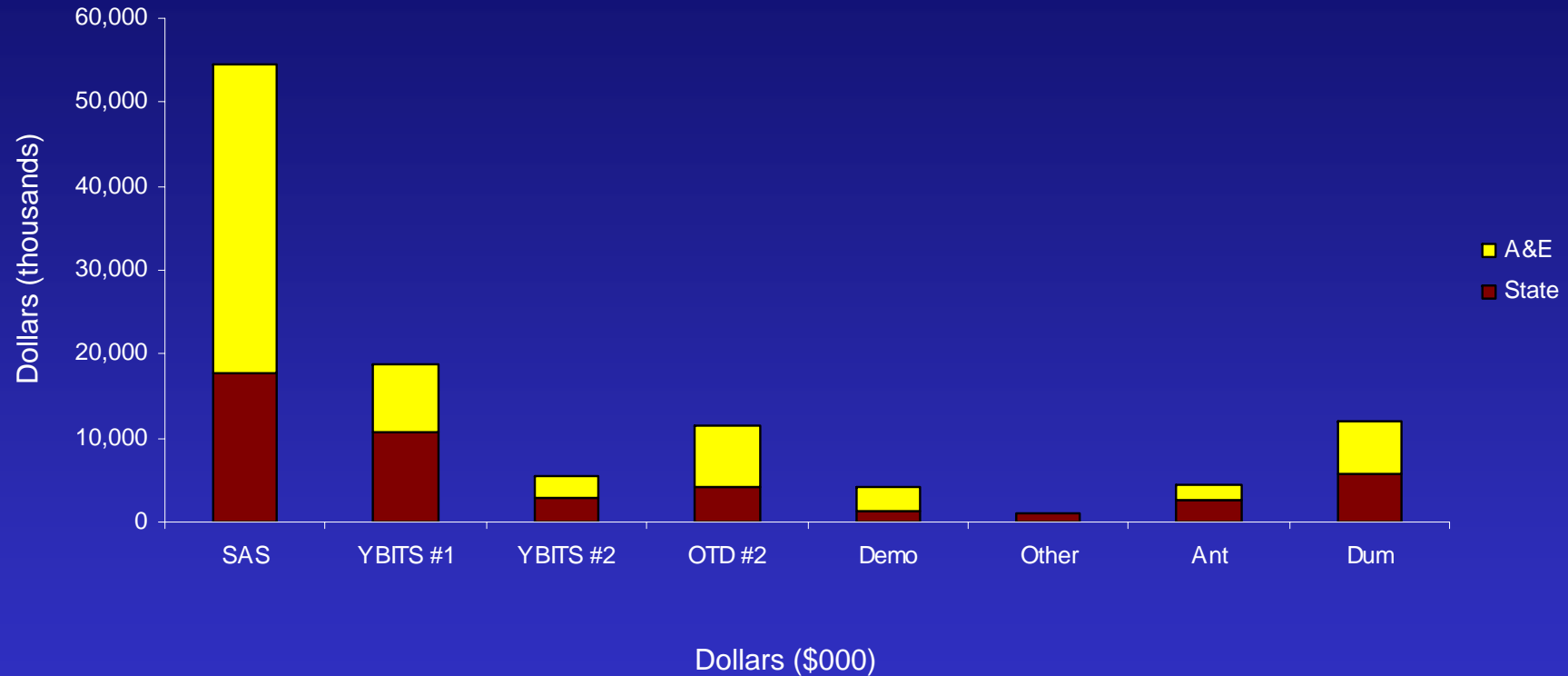
FY 11-12 Budget Breakdown

	FY 10-11 Expense Forecast	FY 11-12 Budget	Change From Prior Year
• Construction	\$ 32.7 M	\$36.4 M	+ \$3.7 M
• Design	\$ 40.2 M	\$39.5 M	- \$ 0.7 M
• METS	\$ 51.8 M	\$24.6 M	- \$27.2 M
• Mgmt, Admin, ROW, O&M	\$ 8.9 M	\$ 9.2 M	+ \$ 0.3 M
Total	\$133.6 M	\$109.7 M	- \$23.9 M

FY 11-12 Budget Breakdown



FY 11-12 Planned Dollars



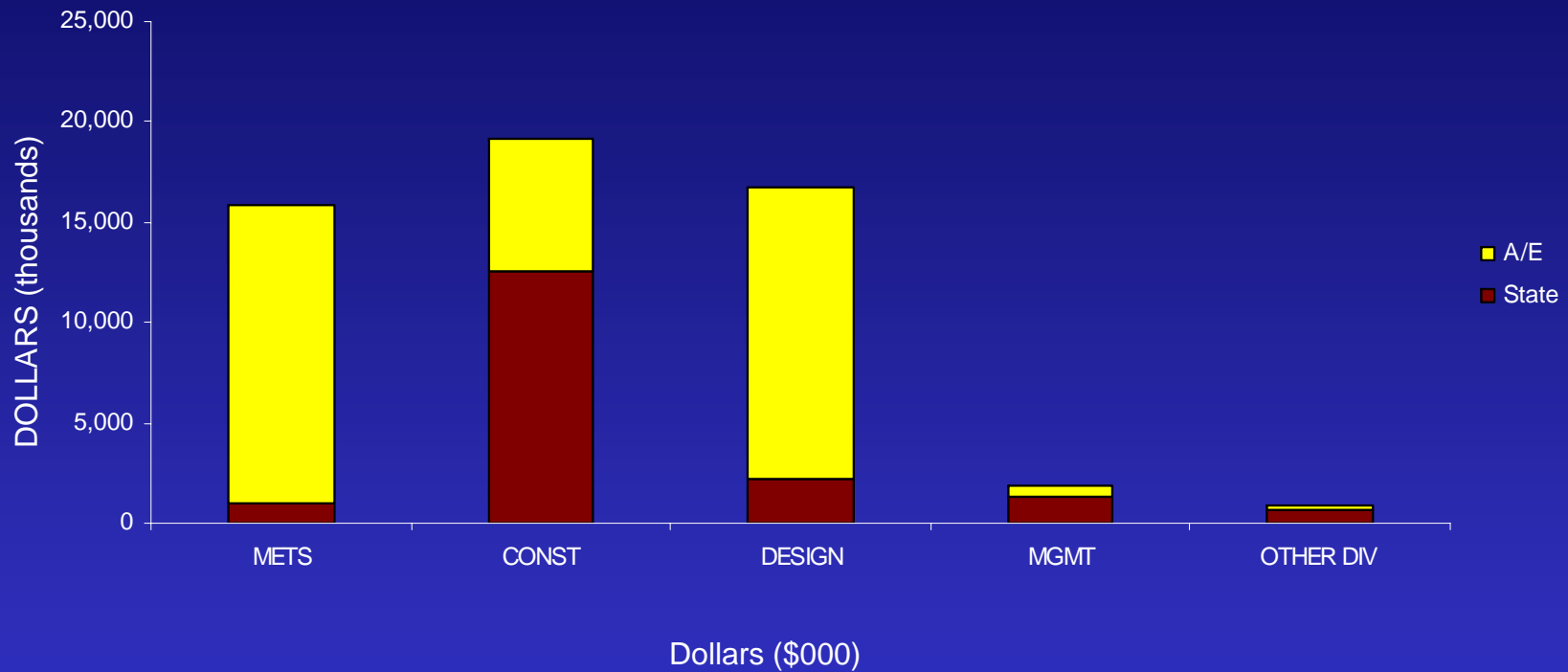
	SAS 0120F	YBI Str-1 0120S	YBI Str-2 0120T	OTD-2 0120M	Demo 01209	Other	Antioch 1A521	Dumbarton 1A522	Total
State	\$17,506	\$9,706	\$2,861	\$4,064	\$1,180	\$957	\$2,542	\$5,455	\$44,271
A&E	\$37,520	\$7,966	\$2,595	\$6,343	\$2,860		\$1,873	\$6,285	\$65,442
Total	\$55,026	\$17,672	\$5,456	\$10,407	\$4,040	\$957	\$4,415	\$11,740	\$109,713

Other Projects:

W. Approach Landscaping \$225k

YBITS Landscaping \$713k

SAS - FY 11-12 Planned Dollars



"Other Div" includes: Adm, Maint,
Office-Eng, Oper, R/W, Env

Budget Comparison

FY 10-11
Estimated
Expenditures

SFOBB

\$119.7 M

Antioch

\$6.7 M

Dumbarton

\$7.2 M

= \$133.6 M

FY 11-12
Proposed
Budget

\$93.6 M

\$4.4 M

\$11.7 M

= \$109.7 M

Toll Bridge Seismic Retrofit Program

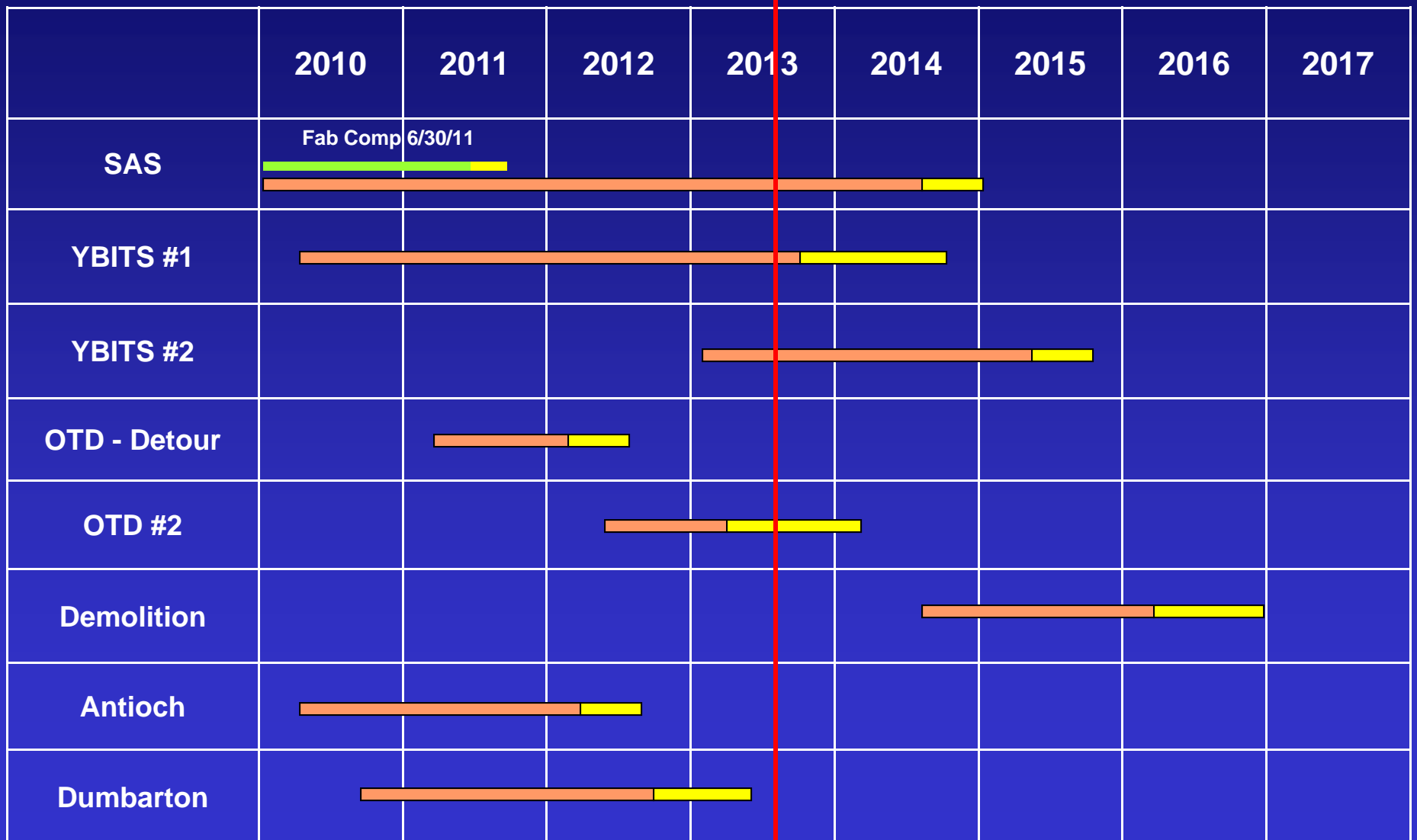
Forecast At Completion

Schedule

8/28/2013

CCO 160 RSSO ▶

Risk

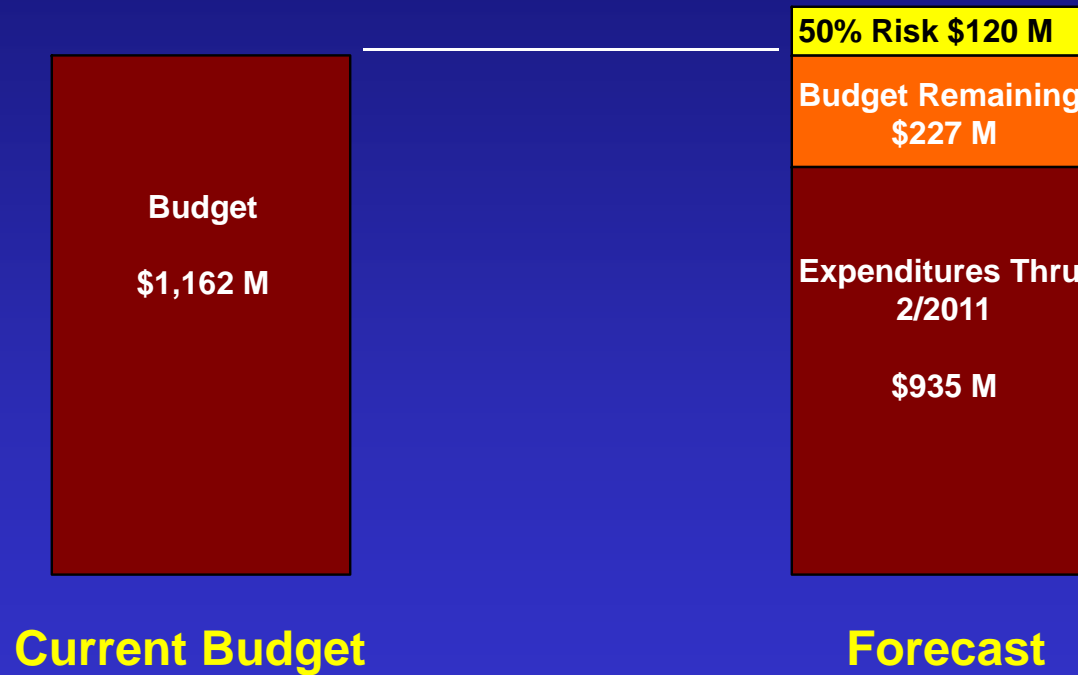


SFOBB East Span COS Forecast

Excludes:

**1. METS A/E In China Beyond August 2011
(Schedule Risk Analysis)**

**50% Risk Forecast: \$1,282 M
(Includes OTD Detour)**

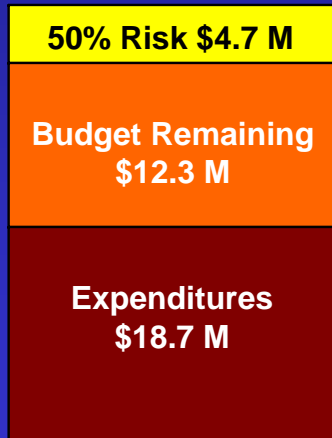


Antioch & Dumbarton COS Forecast

Forecast \$35.7 M

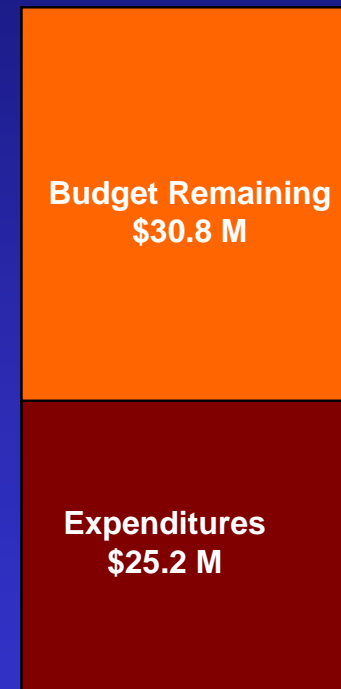
Forecast \$56 M

Budget: \$31 M



Antioch

Budget: \$56 M



Dumbarton

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Program Management Team (PMT)

RE: Agenda No. - 6a1

San Francisco-Oakland Bay Bridge Updates
Item- Self-Anchored Suspension (SAS) Superstructure Mitigation and
Acceleration Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the Self-Anchored Suspension (SAS) Superstructure mitigation and acceleration will be provided at the April 7th meeting.

Attachment(s):

N/A

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Tony Anziano, Toll Bridge Program Manager, Caltrans

RE: Agenda No. - 6b1
Item- San Francisco-Oakland Bay Bridge Updates
Yerba Buena Island Transition Structure (YBITS) No. 1 Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the Yerba Buena Island Transition Structure (YBITS) No. 1 contract will be provided at the April 7th meeting.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee **DATE:** March 28, 2011
(TBPOC)

FR: Steven Hulsebus, Toll Bridge Program Design Manager, Caltrans

RE: Agenda No. - 6c1
Item- San Francisco-Oakland Bay Bridge Updates
Oakland Detour Operations Analysis

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Operational Analysis

A traffic operational analysis was prepared (by Parsons Brinckerhoff) for the temporary Oakland Detour based on a case study of the Yerba Buena Island Detour opened in 2009. The traffic operational analysis prepared for the YBI detour predicted a 5-minute to 7-minute delay in travel times as a result of the detour. Actual delays were measured to be 1 minute to 3 minutes and the conclusion reached was that these delays were primarily due to the lower posted speed for the YBI detour.

The alignment for the Oakland Detour (both westbound and eastbound) is such that a reduced posted speed for these detours will not be required. Therefore, based on a comparison to the YBI detour, a reduction in travel time for the Oakland Detour is predicted to be negligible. There may be delays initially due to driver unfamiliarity, but this should quickly go away.

Operational Enhancements

There are to be minimal traffic enhancements implemented on the detours. These will consist of curve-ahead signs with flashing beacons, speed limit signs (50mph) to remind drivers of the speed limit, and solid striping and additional pavement markings to

discourage lane changes through the detour curves. These enhancements have been approved by the Caltrans Traffic Office Chief.

The presentation for this item will indicate where these measures will be located. The presentation will also have a number of slides comparing the Oakland Detour to the existing roadway alignment and driver perspective views.

Attachment(s):

N/A

Memorandum

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Mo Pazooki, Project Manager, Caltrans

RE: Agenda No. - 7a

Item- Antioch/Dumbarton Bridge Seismic Retrofit Updates

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Antioch Bridge:

- Time Elapsed: 40% (This includes 97-day time extension given under CCO 6)
- Work Completed: 46%

Update of on-going field work is as follows:

- Suspended platform installation completed at 31 of 32 total piers.
- Stair tower installation completed at 20 of 31 total piers.
- Drilling for drill and bond activity completed at 10 of 20 total piers.
- Placing dowels for pier concrete pedestals completed at 10 of 20 total piers.
- Coring for bent cap post-tensioning completed at 23 of 38 total piers.
- Placing jacking stiffeners completed at 15 of 41 total piers.
- Fabrication of seismic bearings completed for 56 of 82 total bearings.
- Installation of seismic bearings completed for 14 of 82 total bearings.
- Pier 39 and 32 are under temporary jacking supports while replacing bearings.
- Fabrication completed for 116 of the 116 total steel column casings.
- Cross bracing fabrication 41% complete.
- Cross bracing install at 2 of 20 Piers

Memorandum

Part of the retrofit work for the Antioch Bridge involves the placement of steel bracing at 20 piers. To accommodate the steel bracing at each pier a concrete pedestal needs to be placed. The design plans showed tolerances that indicated that the use of rigid forms would be appropriate for the placement of the pedestal concrete. However, actual field measurements have shown that there is quite some undulation in the surface of the existing columns. As a result, the contractor will have to furnish and install adjustable column forms in lieu of their planned rigid forms. The change in the forms will accommodate the undulating surface of the existing concrete columns which vary by as much as 4-inches, considered outside of industry standard forming tolerances.

The change is discussed in great depth as part of the Consent Calendar Item 3b4 - Antioch CCO 16-S0.

Dumbarton: Bridge:

- Time Elapsed: 14%
- Work Completed: 14%

Update of on-going field work is as follows:

- Shop drawings for Piers 17, 18 & 19 jacking plan submitted. Pier 17 returned unapproved.
- Design finalized for seismic joint modifications. CCO being processed.
- Anchor plans for water work to USCG for review & approval.
- Installation of work platforms scheduled for early February.
- West end bridge removal for trestle pedestal construction completed. East end removal on-going.
- Installation of 48" steel pipe piles completed.
- Construction of foundations & orthogonal columns at east approach on-going.
- Relocation of bridge lighting & traffic operation system (TOS) on-going.
- Pumping plant foundation work on-going.

Attachment(s):

N/A

TO: Toll Bridge Program Oversight Committee (TBPOC) **DATE:** March 28, 2011

FR: Mo Pazooki, Project Manager, Caltrans
Peter Lee, Senior Program Coordinator, BATA

RE: Agenda No. - 8a
Item- San Mateo-Hayward Bridge Retrofit Rehabilitation Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

Caltrans has been working on several alternatives for a final repair to the fractured wishbone girder detail on the San Mateo-Hayward Bridge. The interim fix was completed several months ago and is undergoing weekly field inspection and monitoring. Caltrans' type-selection process has selected a two slab replacement with pre-cast pre-stressed panels in both directions (Alternative #4). As requested by the TBPOC, the repair strategy was presented to the Seismic Peer Review Panel on February 18, 2011. The Peer review has a concern with the deflection of the two new spans. Design has been working with the Peer review members to address their concern and we are currently finalizing the design.

A preliminary schedule for the project would complete design by July 2011, advertise in August 2011, and start construction by October 2011. The estimated cost of the project is \$10 million, including support.

Construction would likely require two months to relocate utilities and fabricate the pre-cast panels before needing two full two-day weekend bridge closures for slab removal and panel installation, which puts the full bridge closures in late December 2011/early January 2012.

TO: Toll Bridge Program Oversight Committee **DATE:** March 28, 2011
(TBPOC)

FR: Andrew Fremier, Deputy Executive Director, BATA

RE: Agenda No. - 9a
Item- Eyebar Follow-Up
Update

Recommendation:

For Information Only

Cost:

N/A

Schedule Impacts:

N/A

Discussion:

A verbal update on the eyebar follow-up will be provided at the April 7th meeting.

Attachment(s):

N/A

ITEM 10: OTHER BUSINESS

No Attachments